	- TT-2 A -	Cooneh Mont	I DB	Time stamp
L Number	Hits 4395	Search Text metathesis	DB USPAT;	2003/01/02 07:08
1	4395	metathesis	US-PGPUB;	2003/01/02 07:08
			EPO; JPO;	
			DERWENT	1
2	580662	ruthenium or Ru	USPAT;	2003/01/02 07:08
	300002	Tubilitain of its	US-PGPUB;	
			EPO; JPO;	
		•	DERWENT	
3	987	metathesis and (ruthenium or Ru)	USPAT;	2003/01/02 08:58
	•		US-PGPUB;	
			EPO; JPO;	
			DERWENT	·
7	4275590	Osmium or Os	USPAT;	2003/01/02 07:08
			US-PGPUB;	
			EPO; JPO;	·
			DERWENT	
8	4468270	(ruthenium or Ru) or (Osmium or Os)	USPAT;	2003/01/02 07:09
		•	US-PGPUB;	
			EPO; JPO;	
		·	DERWENT	
10	34	trisubstituted adj alkene	USPAT;	2003/01/02 07:09
		·	US-PGPUB;	
			EPO; JPO;	
			DERWENT	
11	233	trisubstituted adj olefin	USPAT;	2003/01/02 07:09
			US-PGPUB;	
			EPO; JPO;	
		l	DERWENT	
12	256	(trisubstituted adj alkene) or	USPAT;	2003/01/02 07:09
		(trisubstituted adj olefin)	US-PGPUB;	
			EPO; JPO;	·
	_		DERWENT	0000/01/00 07 00
4	3	9951344.pn.	USPAT;	2003/01/02 07:09
			US-PGPUB;	
			EPO; JPO; DERWENT	
5	3	"9951344"	USPAT;	2003/01/02 07:09
	3	7731344	US-PGPUB;	2003/01/02 07:03
			EPO; JPO;	
			DERWENT	
6	2	6316380.pn.	USPAT;	2003/01/02 07:09
	_	,	US-PGPUB;	
			EPO; JPO;	
			DERWENT	
9	2	6316380.pn.	USPAT;	2003/01/02 07:09
1		-	US-PGPUB;	
			EPO; JPO;	
			DERWENT	
13	11	((trisubstituted adj alkene) or	USPAT;	2003/01/02 07:09
		(trisubstituted adj olefin)) and (metathesis	US-PGPUB;	
.		and (ruthenium or Ru))	EPO; JPO;	
			DERWENT	
14	2	6348551.pn.	USPAT;	2003/01/02 07:09
			US-PGPUB;	
			EPO; JPO;	
			DERWENT	0000/00/00
15	144	cross adj metathesis	USPAT;	2003/01/02 07:26
			US-PGPUB;	
			EPO; JPO;	
,,	00	(muthonium or Bu) and (arossindi matatheria)	DERWENT	2002/01/02 07:26
16	99	(ruthenium or Ru) and (cross adj metathesis)	USPAT; US-PGPUB;	2003/01/02 07:26
1			EPO; JPO;	
ľ			DERWENT	
17	71214	imidaz\$	USPAT;	2003/01/02 07:27
1 /	11414	1	US-PGPUB;	2003,01,02 07.27
[ [			EPO; JPO;	
			DERWENT	
				L

18	17	((ruthenium or Ru) and (cross adj	USPAT;	2003/01/02 07:31
		metathesis)) and imidaz\$	US-PGPUB;	
		,	EPO; JPO;	
			DERWENT	
19	239999	styrene	USPAT;	2003/01/02 07:31
19	237777	Beyrene	US-PGPUB;	2003, 01, 01 0, 031
			EPO; JPO;	
			DERWENT	
	1	(/www.homium.ou.Du) and (omega.add		2003/01/02 07:31
20	33	, ,	USPAT;	2003/01/02 07:31
		metathesis)) and styrene	US-PGPUB;	
			EPO; JPO;	
			DERWENT	
21	25		USPAT;	2003/01/02 07:32
		metathesis)) and styrene) not (((ruthenium)	US-PGPUB;	
		or Ru) and (cross adj metathesis)) and	EPO; JPO;	1
		imidaz\$)	DERWENT	
22	2	5936100.pn.	USPAT;	2003/01/02 09:17
		-	US-PGPUB;	
	1		EPO; JPO;	
1.	1		DERWENT	
23	) 2	5936100.URPN.	USPAT	2003/01/02 08:59
24	115		USPAT;	2003/01/02 09:27
24	113	363/363.0018.	US-PGPUB;	2003/01/02 03:27
	1		EPO; JPO;	
	1		DERWENT	
				2002/01/02 00 10
25	114	585/366.ccls.	USPAT;	2003/01/02 09:18
		•	US-PGPUB;	
İ			EPO; JPO;	
			DERWENT	
26	77	585/364.ccls.	USPAT;	2003/01/02 09:21
			US-PGPUB;	
		,	EPO; JPO;	
		•	DERWENT	
27	185	585/643.ccls.	USPAT;	2003/01/02 09:31
		·	US-PGPUB;	
			EPO; JPO;	
			DERWENT	1
28	717	560/205.ccls.	USPAT;	2003/01/02 09:31
- "		:	US-PGPUB;	
		·	EPO; JPO;	
			DERWENT	
29	153	560/225.ccls.	USPAT;	2003/01/02 09:33
49	153	300/223.0018.	US-PGPUB;	2003/01/02 09.33
			t ·	
			EPO; JPO;	1
1	1	FC4/1F0 ==1-	DERWENT	2002/01/02 00 35
30	443	564/159.ccls.	USPAT;	2003/01/02 09:35
	1		US-PGPUB;	# ·
			EPO; JPO;	
	1		DERWENT	
31	524	562/598.ccls.	USPAT;	2003/01/02 09:35
	1		US-PGPUB;	
	1		EPO; JPO;	
	1		DERWENT	
32	2197	585/365.ccls. or 585/366.ccls. or	USPAT;	2003/01/02 09:36
-	]	585/364.ccls. or 585/643.ccls. or	US-PGPUB;	
	1	560/205.ccls. or 560/225.ccls. or	EPO; JPO;	
	1	564/159.ccls. or 562/598.ccls.	DERWENT	
33	16	(cross adj metathesis) and (585/365.ccls. or	USPAT;	2003/01/02 09:36
33	10	585/366.ccls. or 585/364.ccls. or	US-PGPUB;	2303, 01, 02 03.30
	1	585/366.ccis. or 565/364.ccis. or	EPO; JPO;	
	1		DERWENT	
		560/225.ccls. or 564/159.ccls. or	DEKMENI	
I	1	562/598.ccls.)	L	L

	<del></del>						<u> </u>	· ·	
	Туре	L#	Hits	Search Text	DBs	Time Star	np Comments	Error	Definition
1	BRS	L1	4395	metathesis	EPO; JPO; DERWE NT	2003/01/0 07:08	02		_
2	BRS	L2	58066 2	ruthenium or Ru	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/0 07:08	)2		
3	BRS	L3	987	metathesis and (ruthenium or Ru)	EPO; JPO; DERWE NT	2003/01/0 08:58	02		
4	BRS	<b>L</b> 7	42755 90	Osmium or Os	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/0 07:08			
5	BRS	L8	44682 70	(ruthenium or Ru) or (Osmium or Os)	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/0 07:09	2		
6	BRS	L10	34	trisubstituted adj alkene	JPO; DERWE NT	2003/01/0 07:09	22		
7	BRS	L11	233		USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/0 07:09	. 2		·

	Err
1	0
2	0
3	0
4	0
5	0
6	0
7	0

01/02/2003, EAST Version: 1.03.0002

<u> </u>	Туре	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error	Definition
8	BRS	L12	256	(trisubstituted adj alkene) or (trisubstituted adj olefin)	USPAT; ; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09			
9	BRS	L4	3	9951344.pn.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09			
10	BRS	<b>L5</b>	3	"9951344"	EPO; JPO; DERWE NT	2003/01/02 07:09			
11	BRS	L6	2	6316380.pn.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09			·
12	BRS	L9	2	6316380.pn.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09			
13	BRS	L13	11	((trisubstituted adj alkene) or (trisubstituted adj olefin)) and (metathesis and (ruthenium or Ru))	EPO; JPO; DERWE NT	2003/01/02 07:09			
14	BRS	L14	2	6348551.pn.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/01/02 07:09			

	Err ors
8	0
9	0
10	0
11	0
12	0
13	0
14	0

01/02/2003, EAST Version: 1.03.0002

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	Туре	L #	Hits	Search Text	DBs	Time S	tamp	Comments	Error	Definition
15	BRS	L15	144	cross adj metathesis	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/03 07:26	1/02			
16	BRS	L16	99	12 and 115	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/03 07:26	1/02			
17	BRS	L17	71214	imidaz\$	EPO; JPO; DERWE NT	2003/03 07:27	1/02		Trunca overf	
18	BRS	L18	17	116 and 117	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/03 07:31	1/02			
19	BRS	L19	23999 9	styrene	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/03 07:31	1/02			
20	BRS	L20	33	116 and 119	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/03 07:31	1/02			
21	BRS	L21	25	120 not 118	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/03 07:32	1/02			

	Err
15	0
16	0
17	1
18	0
19	0
20	0
21	0

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	Туре	L#	Hits	Search Text	DBs	Time	Stamp	Comments	Error	Definition
22	BRS	L22	2	5936100.pn.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/0 09:17				
23	BRS	L23	2	5936100.URPN.	USPAT	2003/0 08:59	01/02			
24	BRS	L24	115	585/365.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/0 09:27	01/02			
25	BRS	L25	114	585/366.ccls.	EPO; JPO; DERWE NT	2003/0 09:18	01/02			
26	BRS	L26	77	585/364.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/0 09:21	01/02			
27	BRS	L27	185	585/643.ccls.	EPO; JPO; DERWE NT	2003/09:31	01/02			
28	BRS	L28	717	560/205.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/09:31	01/02			
29	BRS	L29	153	560/225.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/ 09:33	01/02			

29	28	27	26	25	24	23	22	- 1
0	0	0	0	0	0	0	0 .	Err

	Туре	L #	Hits	Search Text	DBs	Time	Stamp	Comments	Error	Definition
30				564/159.ccls.	USPAT; US-PG PUB;	2003/ 09:35	01/02			
31	BRS	L31	524	562/598.ccls.	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/ 09:35				
32	BRS	L32	2197	124 or 125 or 126 or 127 or 128 or 129 or 130 or 131	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/ 09:36				
33	BRS	L33	16	115 and 132	USPAT; US-PG PUB; EPO; JPO; DERWE NT	2003/ 09:36				

_	Err ors
30	0
31	0
32	0
33	0

## Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1623paz

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

```
Welcome to STN International
                 Web Page URLs for STN Seminar Schedule - N. America
NEWS
                 "Ask CAS" for self-help around the clock
         Apr 08
NEWS 2
                 BEILSTEIN: Reload and Implementation of a New Subject Area
         Apr 09
NEWS
      3
                 ZDB will be removed from STN
NEWS 4
         Apr 09
                 US Patent Applications available in IFICDB, IFIPAT, and
         Apr 19
NEWS
IFIUDB
                 Records from IP.com available in CAPLUS, HCAPLUS, and
NEWS 6
        Apr 22
ZCAPLUS
                 BIOSIS Gene Names now available in TOXCENTER
NEWS 7
         Apr 22
                 Federal Research in Progress (FEDRIP) now available
NEWS
      8
         Apr 22
         Jun 03
                 New e-mail delivery for search results now available
NEWS
      9
         Jun 10
NEWS 10
                 MEDLINE Reload
         Jun 10
                 PCTFULL has been reloaded
NEWS 11
                 FOREGE no longer contains STANDARDS file segment
NEWS 12
         Jul 02
NEWS 13
         Jul 22
                 USAN to be reloaded July 28, 2002;
                  saved answer sets no longer valid
                 Enhanced polymer searching in REGISTRY
NEWS 14
         Jul 29
                 NETFIRST to be removed from STN
NEWS 15
         Jul 30
NEWS 16
         Aug 08
                 CANCERLIT reload
                 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 17
         Aug 08
NEWS 18
         Aug 08
                 NTIS has been reloaded and enhanced
NEWS 19
         Aug 19
                 Aquatic Toxicity Information Retrieval (AQUIRE)
                 now available on STN
                 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 20
         Aug 19
NEWS 21 Aug 19
                 The MEDLINE file segment of TOXCENTER has been reloaded
                 Sequence searching in REGISTRY enhanced
NEWS 22
         Aug 26
                 JAPIO has been reloaded and enhanced
NEWS 23
         Sep 03
                 Experimental properties added to the REGISTRY file
NEWS 24 Sep 16
                 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 25
         Sep 16
                 CA Section Thesaurus available in CAPLUS and CA
NEWS 26
         Sep 16
         Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 27
         Oct 21 EVENTLINE has been reloaded
NEWS 28
NEWS 29
         Oct 24 BEILSTEIN adds new search fields
NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on
STN
         Oct 25 MEDLINE SDI run of October 8, 2002
 NEWS 31
 NEWS 32
         Nov 18
                 DKILIT has been renamed APOLLIT
                 More calculated properties added to REGISTRY
 NEWS 33
         Nov 25
                 TIBKAT will be removed from STN
         Dec 02
NEWS 34
         Dec 04
                 CSA files on STN
NEWS 35
                 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 36
         Dec 17
                 TOXCENTER enhanced with additional content
NEWS 37
         Dec 17
NEWS 38 Dec 17 Adis Clinical Trials Insight now available on STN
```

NEWS EXPRESS October 14 CURRENT WINDOWS VERSION IS V6.01,
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002

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FILE 'HOME' ENTERED AT 08:01:52 ON 30 DEC 2002

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

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<sup>=&</sup>gt; Ruthenium or Ru

69421 RUTHENIUM 20 RUTHENIUMS 69421 RUTHENIUM (RUTHENIUM OR RUTHENIUMS) 54409 RU 168 RUS 54555 RU (RU OR RUS) L186501 RUTHENIUM OR RU => Osmium or Os 19678 OSMIUM 5 OSMIUMS 19679 OSMIUM (OSMIUM OR OSMIUMS) 23390 OS 69 OSES 248 ORA 17 ORAS 12 OSAR 75 OSSA 23801 OS (OS OR OSES OR ORA OR ORAS OR OSAR OR OSSA) L2 33821 OSMIUM OR OS => 11 or 12 109558 L1 OR L2 L3 => logoff hold SINCE FILE TOTAL COST IN U.S. DOLLARS ENTRY SESSION FULL ESTIMATED COST 6.91 7.12 SESSION WILL BE HELD FOR 60 MINUTES STN INTERNATIONAL SESSION SUSPENDED AT 08:02:37 ON 30 DEC 2002 Connecting via Winsock to STN Welcome to STN International! Enter x:x LOGINID:ssspta1623paz PASSWORD: \* \* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \* SESSION RESUMED IN FILE 'CAPLUS' AT 08:23:49 ON 30 DEC 2002 FILE 'CAPLUS' ENTERED AT 08:23:49 ON 30 DEC 2002 COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS) COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 6.91 7.12 => file caplus COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION 7.12 6.91 FULL ESTIMATED COST

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=> file reg COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.40 7.52

FULL ESTIMATED COST

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 29 DEC 2002 HIGHEST RN 477761-07-2 DICTIONARY FILE UPDATES: 29 DEC 2002 HIGHEST RN 477761-07-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=>

Uploading 09891144 ligand.str

L4 STRUCTURE UPLOADED

=> d 14L4 HAS NO ANSWERS STR



Structure attributes must be viewed using STN Express query preparation.

=> search 14 sss full FULL SEARCH INITIATED 08:24:29 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - >1,000,000 TO ITERATE

< 40.0% PROCESSED 400000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.07

172349 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*

\*\*INCOMPLETE\*\* BATCH

PROJECTED ITERATIONS:

EXCEEDS 1000000

PROJECTED ANSWERS:

EXCEEDS 540953

172349 SEA SSS FUL L4

=> file caplus COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 140.28 147.80

FULL ESTIMATED COST

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=> 15

L6 19361 L5

=> d his

(FILE 'HOME' ENTERED AT 08:01:52 ON 30 DEC 2002)

FILE 'CAPLUS' ENTERED AT 08:02:03 ON 30 DEC 2002

L1 86501 RUTHENIUM OR RU

L2 33821 OSMIUM OR OS

L3 109558 L1 OR L2

FILE 'CAPLUS' ENTERED AT 08:23:58 ON 30 DEC 2002

FILE 'REGISTRY' ENTERED AT 08:24:04 ON 30 DEC 2002

L4 STRUCTURE UPLOADED

L5 172349 SEARCH L4 SSS FULL

FILE 'CAPLUS' ENTERED AT 08:24:49 ON 30 DEC 2002 19361 L5

=> metathesis

L6

10376 METATHESIS

155 METATHESES

L7 10423 METATHESIS

(METATHESIS OR METATHESES)

=> 13 and 17

L8 1522 L3 AND L7

=> 18 and 16

L9 187 L8 AND L6

=> d 19 177-187 ti

- L9 ANSWER 177 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Alkylidene complexes of **ruthenium** with N-heterocyclic carbene ligands and their application as highly active, selective catalysts for olefin **metathesis**
- L9 ANSWER 178 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI N-Heterocyclic carbenes: application of **ruthenium**-alkylidene complexes in ring-opening **metathesis** polymerization
- L9 ANSWER 179 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Highly active ruthenium catalysts for olefin metathesis : the synergy of N-Heterocyclic carbenes and coordinatively labile ligands
- L9 ANSWER 180 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Ruthenium Carbene-Based Olefin Metathesis Initiators: Catalyst Decomposition and Longevity
- L9 ANSWER 181 OF 187 CAPLUS COPYRIGHT 2002 ACS

- TI Synthesis and Activity of a New Generation of Ruthenium-Based Olefin Metathesis Catalysts Coordinated with 1,3-Dimesityl-4,5-dihydroimidazol-2-ylidene Ligands
- L9 ANSWER 182 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI (p-cymene) RuLCl2 (L = 1,3-Bis(2,4,6-trimethylphenyl) imidazol-2-ylidene and
- 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes
  - Ring Closing Metathesis Catalysts
- L9 ANSWER 183 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Ruthenium carbene complexes with imidazolin-2-ylidene ligands allow the formation of tetrasubstituted cycloalkenes by ring-closing metathesis (RCM)
- L9 ANSWER 184 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI N-heterocyclic carbenes: novel ruthenium-alkylidene complexes
- L9 ANSWER 185 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Ring opening metathesis polymerization using new ruthenium alkylidene complexes with N-heterocyclic carbene ligands
- L9 ANSWER 186 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Increased ring closing metathesis activity of ruthenium -based olefin metathesis catalysts coordinated with imidazolin-2-ylidene ligands
- L9 ANSWER 187 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Olefin Metathesis-Active Ruthenium Complexes Bearing a Nucleophilic Carbene Ligand
- => d 19 d 19 177-187 ti fbib abs
- L9 IS NOT VALID HERE

For an explanation, enter "HELP DISPLAY".

- => d 19 177-187 ti fbib abs
- L9 ANSWER 177 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Alkylidene complexes of **ruthenium** with N-heterocyclic carbene ligands and their application as highly active, selective catalysts for olefin **metathesis**
- AN 1999:659673 CAPLUS
- DN 131:257700
- TI Alkylidene complexes of **ruthenium** with N-heterocyclic carbene ligands and their application as highly active, selective catalysts for olefin **metathesis**
- IN Herrmann, Wolfgang Anton; Schattenmann, Wolfgang; Weskamp, Thomas
- PA Aventis Research und Technologies G.m.b.H. und Co. K.-G., Germany
- SO Ger. Offen., 12 pp. CODEN: GWXXBX
- DT Patent
- LA German
- FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19815275 WO 9951344	A1 A1	19991007 19991014	DE 1998-19815275 WO 1999-EP1785	19980406 19990318

W: IL, JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

DE 1998-19815275A 19980406 EP 1999-910357 19990318

EP 1087838 Al 20010404 R: CH, DE, FR, GB, LI, NL

DE 1998-19815275A 19980406 WO 1999-EP1785 W 19990318

OS MARPAT 131:257700

- AB Six title compds. were prepd. in 42-89% yields and used as catalysts for polymn. and metathesis of olefins. E.g., (Ph3P)2Cl2Ru:CHPh and 1,3-diisopropylimidazolin-2-ylidene gave 86% benzylidenedichlorobis(1,3-diisopropylimidazolin-2-ylidene)ruthenium, which, used as catalyst in ring-opening metathesis-polymn. (ROMP) of cyclooctene, gave 97% of product.
- L9 ANSWER 178 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI N-Heterocyclic carbenes: application of **ruthenium**-alkylidene complexes in ring-opening **metathesis** polymerization
- AN 1999:568806 CAPLUS
- DN 131:337390
- TI N-Heterocyclic carbenes: application of **ruthenium**-alkylidene complexes in ring-opening **metathesis** polymerization
- AU Frenzel, U.; Weskamp, T.; Kohl, F. J.; Schattenmann, W. C.; Nuyken, O.; Herrmann, W. A.
- CS Lehrstuhl fur Makromolekulare Stoffe, Technische Universitat Munchen, Garching bei Munchen, D-85747, Germany
- SO Journal of Organometallic Chemistry (1999), 586(2), 263-265 CODEN: JORCAI; ISSN: 0022-328X
- PB Elsevier Science S.A.
- DT Journal
- LA English

also

AB Novel **ruthenium**-alkylidene catalysts bearing N-heterocyclic carbenes were applied in ring-opening **metathesis** polymn. (ROMP) reactions of various norbornene derivs. High tolerance towards polar functional groups as well as high catalytic activity is demonstrated.

The combination of N-heterocyclic carbenes and coordinatively labile ligands (phosphanes or chloro-bridged transition metals) on the **ruthenium** center proves not only successful regarding catalytic performance but

promising with respect to polymer properties.

- RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L9 ANSWER 179 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Highly active **ruthenium** catalysts for olefin **metathesis**: the synergy of N-Heterocyclic carbenes and coordinatively labile ligands
- AN 1999:560809 CAPLUS
- DN 131:299544
- TI Highly active ruthenium catalysts for olefin metathesis : the synergy of N-Heterocyclic carbenes and coordinatively labile ligands
- AU Weskamp, Thomas; Kohl, Florian J.; Hieringer, Wolfgang; Gleich, Dieter; Herrmann, Wolfgang A.
- CS Anorganisch-chemisches Institut der Technischen Universitat Munchen, Garching, D-85747, Germany
- SO Angewandte Chemie, International Edition (1999), 38(16), 2416-2419

CODEN: ACIEF5; ISSN: 1433-7851

PB Wiley-VCH Verlag GmbH

DT Journal LA English

GI

Ι

AB The synergy of N-heterocyclic carbenes (NHCs) and coordinatively labile ligands allows for the synthesis of catalysts, e.g. I (R = iPr, cyclohexyl), for olefin metathesis that combine high catalytic activity with excellent stability even against air and moisture. This concept also proves successful in catalytic processes other than metathesis, such as palladium-catalyzed coupling reactions. Thus, reaction of Cl2Ru(PCy3)2:CHPh with 1,3-dialkylimidazolin-2-ylidene in THF gave title complexes I. ROMP of 1,5-cyclooctadiene catalyzed with I and related compds. was discussed.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 180 OF 187 CAPLUS COPYRIGHT 2002 ACS

TI Ruthenium Carbene-Based Olefin Metathesis Initiators: Catalyst Decomposition and Longevity

AN 1999:552169 CAPLUS

DN 131:299542

TI Ruthenium Carbene-Based Olefin Metathesis Initiators: Catalyst Decomposition and Longevity

AU Ulman, Michael; Grubbs, Robert H.

CS Arnold and Mabel Beckman Laboratory of Chemical Synthesis Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Journal of Organic Chemistry (1999), 64(19), 7202-7207 CODEN: JOCEAH; ISSN: 0022-3263

PB American Chemical Society

DT Journal

LA English

AB Thermolytic decompn. pathways were studied for several Ru carbene-based olefin metathesis catalysts. Substituted carbenes decomp. through bimol. pathways while the unsubstituted carbene was found to decompd. unimolecularly. Implications for ring-closing metathesis are discussed, and the longevity of several Ru -based catalysts are compared.

RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 181 OF 187 CAPLUS COPYRIGHT 2002 ACS T.9 Synthesis and Activity of a New Generation of Ruthenium-Based ТT Olefin Metathesis Catalysts Coordinated with 1,3-Dimesityl-4,5-dihydroimidazol-2-ylidene Ligands AN 1999:505335 CAPLUS 131:285987 DN Synthesis and Activity of a New Generation of Ruthenium-Based ΤI Olefin Metathesis Catalysts Coordinated with 1,3-Dimesityl-4,5-dihydroimidazol-2-ylidene Ligands Scholl, Matthias; Ding, Sheng; Lee, Choon Woo; Grubbs, Robert H. ΑU Arnold and Mabel Beckman Laboratory of Chemical Synthesis Division of CS Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA Organic Letters (1999), 1(6), 953-956 SO CODEN: ORLEF7; ISSN: 1523-7060 PB American Chemical Society DTJournal LA English A new family of 1,3-dimesityl-4,5-dihydroimidazol-2-ylidene-substituted AB ruthenium-based complexes has been prepd. starting from RuCl2(:CHPh)(PCy3)2. These air- and water-tolerant complexes were shown to exhibit an increased ring-closing metathesis activity at elevated temp. when compared to that of the parent complex and a previously developed complex. In many instances the activity of these complexes also rivaled or exceeded that of an alkoxy-imido molybdenum complex. Catalyst loadings of as low as 0.05 mol % could be used. THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 36 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 182 OF 187 CAPLUS COPYRIGHT 2002 ACS L9 (p-cymene) RuLCl2 (L = 1,3-Bis(2,4,6-trimethylphenyl)imidazol-2-ylidene ΤI and 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes as Ring Closing Metathesis Catalysts AN 1999:488338 CAPLUS 131:243391 DN (p-cymene) RuLCl2 (L = 1,3-Bis(2,4,6-trimethylphenyl)imidazol-2-ylidene TТ and 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes as Ring Closing Metathesis Catalysts Jafarpour, Laleh; Huang, Jinkun; Stevens, Edwin D.; Nolan, Steven P. ΑU Department of Chemistry, University of New Orleans, New Orleans, LA, CS 70148, USA Organometallics (1999), 18(18), 3760-3763 SO CODEN: ORGND7; ISSN: 0276-7333 American Chemical Society PB DTJournal LΑ English CASREACT 131:243391 OS Complexes of (.eta.6-arene) ruthenium bearing the carbene ligand AR 1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene (IMes) and 1,3-bis(2,6-diisopropylphenyl)imidazol-2-ylidene (IPr) Ru (IMes) (Cl)2(.eta.6-arene), Ru(IPr)(Cl)2(.eta.6-arene), and [ Ru:C:C:CPh2(IMes)(Cl)(.eta.6-arene)]PF6 were prepd. and efficient catalyst precursors for ring closing olefin metathesis. crystal structure of [(p-cymene)RuCl(IMes)(:C:C:CPh2)]PF6 was detd.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 183 OF 187 CAPLUS COPYRIGHT 2002 ACS

- TI Ruthenium carbene complexes with imidazolin-2-ylidene ligands allow the formation of tetrasubstituted cycloalkenes by ring-closing metathesis (RCM)
- AN 1999:429173 CAPLUS
- DN 131:242770
- TI Ruthenium carbene complexes with imidazolin-2-ylidene ligands allow the formation of tetrasubstituted cycloalkenes by ring-closing metathesis (RCM)
- AU Ackermann, Lutz; Furstner, Alois; Weskamp, Thomas; Kohl, Florian J.; Herrmann, Wolfgang A.
- CS Max-Planck-Institut fur Kohlenforschung, Mulheim/Ruhr, D-45470, Germany
- SO Tetrahedron Letters (1999), 40(26), 4787-4790 CODEN: TELEAY; ISSN: 0040-4039
- PB Elsevier Science Ltd.
- DT Journal
- LA English
- OS CASREACT 131:242770
- AB Chem. quite robust **ruthenium** carbene complexes bearing one or two imidazolin-2-ylidene ligands are highly active catalysts for all

types

- of ring-closing metathesis (RCM) reactions. Importantly, they even allow the formation of tetrasubstituted alkenes that were previously out of reach with ruthenium-based metathesis catalysts.
- RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L9 ANSWER 184 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI N-heterocyclic carbenes: novel ruthenium-alkylidene complexes
- AN 1999:391587 CAPLUS
- DN 131:144700
- TI N-heterocyclic carbenes: novel ruthenium-alkylidene complexes
- AU Weskamp, Thomas; Kohl, Florian J.; Herrmann, Wolfgang A.
- CS Anorganisch-Chemisches Institut der Technischen Universitat Munchen, Garching, D-85747, Germany
- Journal of Organometallic Chemistry (1999), 582(2), 362-365 CODEN: JORCAI; ISSN: 0022-328X
- PB Elsevier Science S.A.
- DT Journal
- LA English
- OS CASREACT 131:144700

GI

AB Ru-based catalysts for olefin metathesis have attained enormous attention during the past years. Recently the application of N-heterocyclic carbenes extends and complements the ubiquitous phosphines.

The authors now report on new members of the family of Ru-based catalysts for olefin metathesis related to their recently published work. The synthesis of novel mixed carbene/phosphine- and homo-

and heterobimetallic ruthenium alkylidene complexes is presented. Thus, reaction of [RuCl2(:CHPh)(PCy3)2] (PCy3 = tricyclohexylphosphine) with 1,3-dialkylimidazolin-2-ylidene (I, R = cyclohexyl, (R)-phenylethyl, (R)-1-naphththylethyl) gave N-heterocyclic carbene ruthenium complexes II (R = same as above) in excellent yields. Reaction of bis(N-heterocyclic carbene) ruthenium complex III (R = cyclohexyl) with [(p-cymene)MCl2]2 (M = Ru, Os) and [Cp\*MCl2]2 (M = Rh, Ir; Cp\* = pentamethylcyclopentadienyl) gave binuclear carbene complexes (IV; R = cyclohexyl, M1 = (p-cymene)MCl, Cp\*MCl with M same as in reactant). First applications of these catalysts

in ring-opening metathesis polymerization (ROMP) and ring-closing metathesis (RCM) show significantly higher catalytic activity than any complexes of this type yet known (no data).

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L9 ANSWER 185 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Ring opening metathesis polymerization using new ruthenium alkylidene complexes with N-heterocyclic carbene ligands

AN 1999:213647 CAPLUS

- DN 130:352621
- TI Ring opening metathesis polymerization using new ruthenium alkylidene complexes with N-heterocyclic carbene ligands
  AU Frenzel, Ulrich; Nuyken, Oskar; Kohl, Florian J.; Schattenmann, Wolfgang

C.; Weskamp, Thomas; Herrmann, Wolfgang A.

Lehrstuhl fur Makromolekulare Stoffe, Technische Universitat Munchen, CS Garching, D-85747, Germany Polymeric Materials Science and Engineering (1999), 80, 135-136 SO CODEN: PMSEDG; ISSN: 0743-0515 American Chemical Society PB DTJournal LA English The increase of catalytic activity from the iodo deriv. to the chloro AΒ substituted compd. was obsd. in ring-opening metathesis polymn. of various norbornene, cyclooctadiene, and cyclooctene derivs. using ruthenium alkylidene complexes as catalysts. The catalysts showed good tolerance towards several functional groups, e.g. -COOH or C:O. THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT Ь9 ANSWER 186 OF 187 CAPLUS COPYRIGHT 2002 ACS Increased ring closing metathesis activity of ruthenium TΤ -based olefin metathesis catalysts coordinated with imidazolin-2-ylidene ligands 1999:183179 CAPLUS ΑN 130:296434 DN Increased ring closing metathesis activity of ruthenium TТ -based olefin metathesis catalysts coordinated with imidazolin-2-ylidene ligands Scholl, Matthias; Trnka, Tina M.; Morgan, John P.; Grubbs, Robert H. ΑU Arnold & Mabel Beckman Laboratory Chemical Synthesis, Division Chemistry CS Chemical Engineering, California Institute Technology, Pasadena, CA, Tetrahedron Letters (1999), 40(12), 2247-2250 SO CODEN: TELEAY; ISSN: 0040-4039 Elsevier Science Ltd. PB DTJournal LA English · CASREACT 130:296434 OS AΒ A novel air and water tolerant, imidazolinylidene-substituted ruthenium-based complex, has been prepd. starting from RuCl2(=CHPh)(PCy3)2 and shown to exhibit increased ring-closing metathesis activity at elevated temp. compared to that of the parent complex. Di-, tri-, and even tetra-substituted cycloolefins were successfully prepd. from corresponding diene precursors using this new catalyst in moderate to excellent yields. THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 18 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 187 OF 187 CAPLUS COPYRIGHT 2002 ACS L9Olefin Metathesis-Active Ruthenium Complexes Bearing a TI Nucleophilic Carbene Ligand 1999:163636 CAPLUS ΑN 130:296806 DN Olefin Metathesis-Active Ruthenium Complexes Bearing a TI Nucleophilic Carbene Ligand Huang, Jinkun; Stevens, Edwin D.; Nolan, Steven P.; Petersen, Jeffrey L. ΑU Departments of Chemistry, University of New Orleans, New Orleans, LA, CS

Journal of the American Chemical Society (1999), 121(12), 2674-2678

70148, USA

Journal

CODEN: JACSAT; ISSN: 0002-7863 American Chemical Society

SO

PB DT LΑ English os CASREACT 130:296806 The reaction of [Cp\*RuCl]4 (1; Cp\* = .eta.5-C5Me5) with the carbene AB ligand 1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene (IMes) affords a coordinatively unsatd. Cp\*Ru(IMes)Cl (3) complex in 86% isolated yield. Soln. calorimetric results in this system provide information concerning the electron donor properties of the carbene ligand, which are very similar to those of PCy3. Structural information from single-crystal x-ray studies for complex 3 allows the detn. of steric parameters assocd. with this ligand. The thermochem. information is used to predict the magnitude of the enthalpic driving force behind substitution reactions involving RuCl2(:C(H)Ph)(PCy3)2 (1) and the carbene ligand, IMes, affording the RuCl2(:C(H)Ph)(PCy3)(IMes) (6) complex in high yield. A similar mixed carbene/phosphine ruthenium complex, RuCl2(:C(H)Ph)(PPh3)(IMes), can also be isolated from RuCl2(:C(H)Ph)(PPh3)2 and the IMes ligand. A single-crystal x-ray diffraction study has been performed on 6. The thermal stability of these mixed phosphine/carbene ruthenium carbene complexes has been studied at 60.degree. in toluene. Their catalytic activity has been evaluated for the ring closing metathesis of di-Et diallylmalonate. THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 44 ALL CITATIONS AVAILABLE IN THE RE FORMAT => Connection closed by remote host Connecting via Winsock to STN Welcome to STN International! Enter x:x LOGINID:ssspta1623paz PASSWORD: TERMINAL (ENTER 1, 2, 3, OR ?):2 Welcome to STN International Web Page URLs for STN Seminar Schedule - N. America NEWS 1 Apr 08 "Ask CAS" for self-help around the clock NEWS 2 BEILSTEIN: Reload and Implementation of a New Subject Area NEWS 3 Apr 09 NEWS 4 ZDB will be removed from STN Apr 09 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and NEWS IFIUDB NEWS 6 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and ZCAPLUS NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER

NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available NEWS 9 Jun 03 New e-mail delivery for search results now available

NEWS 10 Jun 10 MEDLINE Reload

NEWS 11 Jun 10 PCTFULL has been reloaded

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NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
                 saved answer sets no longer valid
                 Enhanced polymer searching in REGISTRY
NEWS 14 Jul 29
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 08
                CANCERLIT reload
NEWS 17 Aug 08
                 PHARMAMarketLetter(PHARMAML) - new on STN
         Aug 08
                NTIS has been reloaded and enhanced
NEWS 18
NEWS 19 Aug 19
                Aquatic Toxicity Information Retrieval (AQUIRE)
                 now available on STN
                 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 20
         Aug 19
                 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 21
         Aug 19
         Aug 26
                 Sequence searching in REGISTRY enhanced
NEWS 22
NEWS 23 Sep 03
                 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16 Experimental properties added to the REGISTRY file
NEWS 25 Sep 16 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28 Oct 21 EVENTLINE has been reloaded
NEWS 29 Oct 24 BEILSTEIN adds new search fields
NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on
STN
NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
NEWS 33 Nov 25 More calculated properties added to REGISTRY
NEWS 34 Dec 02 TIBKAT will be removed from STN
NEWS 35 Dec 04 CSA files on STN
NEWS 36 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 37 Dec 17 TOXCENTER enhanced with additional content
NEWS 38 Dec 17 Adis Clinical Trials Insight now available on STN
NEWS 39 Dec 30 ISMEC no longer available
NEWS EXPRESS October 14 CURRENT WINDOWS VERSION IS V6.01,
              CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
              AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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              CAS World Wide Web Site (general information)
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=> 12 L3 19361 L2

=> Ruthenium or Ru

69421 RUTHENIUM

20 RUTHENIUMS

69421 RUTHENIUM

(RUTHENIUM OR RUTHENIUMS)

54409 RU

168 RUS

54555 RU

(RU OR RUS)

L4 86501 RUTHENIUM OR RU

=> Osmium or Os

19678 OSMIUM

5 OSMIUMS

19679 OSMIUM

(OSMIUM OR OSMIUMS)

23390 OS

69 OSES

248 ORA

17 ORAS

12 OSAR

75 OSSA

23801 OS

(OS OR OSES OR ORA OR ORAS OR OSAR OR OSSA)

L5 33821 OSMIUM OR OS

=> 14 or 15

L6 109558 L4 OR L5

=> metathesis

10376 METATHESIS

155 METATHESES

L7 10423 METATHESIS

(METATHESIS OR METATHESES)

=> 16 and 17

L8 1522 L6 AND L7

=> 13 and 18

L9 187 L3 AND L8

=> d 19 166-176 ti

- L9 ANSWER 166 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Ruthenium carbene complexes with imidazol-2-ylidene ligands: syntheses of conduritol derivatives reveals superior RCM activity
- L9 ANSWER 167 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of Bis- and Oligo-gem-difluorocyclopropanes Using the Olefin Metathesis Reaction
- L9 ANSWER 168 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of Functionalized Olefins by Cross and Ring-Closing Metatheses
- L9 ANSWER 169 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Catalyst complex with carbene ligand
- L9 ANSWER 170 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Ruthenium Carbene Complexes with N,N'-Bis(mesityl)imidazol-2-ylidene Ligands: RCM Catalysts of Extended Scope
- L9 ANSWER 171 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Allene cross-metathesis: synthesis of 1,3-disubstituted allenes
- L9 ANSWER 172 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI (p-cymene) RuLCl2 (L = 1, 3-Bis(2, 4, 6-trimethylphenyl) imidazol-2-ylidene

and

1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes

as

Ring Closing Metathesis Catalysts. [Erratum to document cited in CA131:243391]

- L9 ANSWER 173 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Influence of Sterically Demanding Carbene Ligation on Catalytic Behavior and Thermal Stability of Ruthenium Olefin Metathesis
  Catalysts
- L9 ANSWER 174 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Indenylidene-Imidazolylidene Complexes of Ruthenium as Ring-Closing Metathesis Catalysts

ANSWER 175 OF 187 CAPLUS COPYRIGHT 2002 ACS Synthesis of Trisubstituted Alkenes via Olefin Cross-Metathesis ΤI ANSWER 176 OF 187 CAPLUS COPYRIGHT 2002 ACS T.9 Coordinatively Unsaturated 16-Electron Ruthenium Allenylidene TIComplexes: Synthetic, Structural, and Catalytic Studies => d 19 166-176 ti fbib abs ANSWER 166 OF 187 CAPLUS COPYRIGHT 2002 ACS L9Ruthenium carbene complexes with imidazol-2-ylidene ligands: ТT syntheses of conduritol derivatives reveals superior RCM activity 2000:261556 CAPLUS AΝ 133:59000 DN Ruthenium carbene complexes with imidazol-2-ylidene ligands: ΤI syntheses of conduritol derivatives reveals superior RCM activity Ackermann, Lutz; El Tom, David; Furstner, Alois AU Max-Planck-Institut fur Kohlenforschung, Mulheim/Ruhr, D-45470, Germany CS SO Tetrahedron (2000), 56(15), 2195-2202 CODEN: TETRAB; ISSN: 0040-4020 Elsevier Science Ltd. PB DTJournal -LΑ English os CASREACT 133:59000 Syntheses of conduritol A, E and F derivs. are described using AB galactitol, D-mannitol and D-glucitol, resp., as the starting materials. The key steps of this approach comprise a Tebbe olefination reaction for the prepn. of dienes, followed by ring closing metathesis (RCM) for the formation of the polyhydroxylated cyclohexene rings of the targets. Α comparative study shows that the latter transformation is best achieved with catalytic amts. of ruthenium carbene complex bearing one PCy3 and one 2,3-dihydro-1H-imidazol-2-ylidene ligand in its coordination sphere. THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 72 ALL CITATIONS AVAILABLE IN THE RE FORMAT L9ANSWER 167 OF 187 CAPLUS COPYRIGHT 2002 ACS Synthesis of Bis- and Oligo-gem-difluorocyclopropanes Using the Olefin ΤI Metathesis Reaction 2000:239085 CAPLUS AΝ 133:58545 DN Synthesis of Bis- and Oligo-gem-difluorocyclopropanes Using the Olefin ΤI Metathesis Reaction Itoh, Toshiyuki; Mitsukura, Koichi; Ishida, Nanae; Uneyama, Kenji ΑU Department of Chemistry Faculty of Education and Department of Applied CS Chemistry Faculty of Engineering, Okayama University, Okayama, 700-8530, Japan Organic Letters (2000), 2(10), 1431-1434 SO CODEN: ORLEF7; ISSN: 1523-7060 American Chemical Society PB DTJournal LΑ English

CASREACT 133:58545

OS GI

PhCH<sub>2</sub>O 
$$\xrightarrow{H}$$
  $\xrightarrow{R}$   $\xrightarrow{N}$   $\xrightarrow{N}$   $\xrightarrow{R}$   $\xrightarrow{R}$   $\xrightarrow{N}$   $\xrightarrow{N}$   $\xrightarrow{R}$   $\xrightarrow{R}$ 

- AB Synthesis of six types of novel bis- and oligo-gem-difluorocyclopropanes such as I has been accomplished through the olefin metathesis reaction protocol. E.g., olefin metathesis of (benzyloxymethyl) (allyloxymethyl) difluorocyclopropane II with the dimesityldihydroimidazolylideneruthenium metathesis catalyst III (R = 2,4,6-Me3C6H2; R1 = cyclohexyl) over 36 h in methylene chloride gave I in 80% yield as a 4:1 mixt. of E and Z olefin stereoisomers. III and the Grubbs' ruthenium metathesis catalyst with coordinating tricyclohexylphosphine were used as olefin metathesis catalysts; catalyst III gave better results than the tricyclohexylphosphine-contg. catalyst for most of the substrates.
- RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD

  ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L9 ANSWER 168 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of Functionalized Olefins by Cross and Ring-Closing
  Metatheses
- AN 2000:215112 CAPLUS
- DN 133:4435
- TI Synthesis of Functionalized Olefins by Cross and Ring-Closing Metatheses
- AU Chatterjee, Arnab K.; Morgan, John P.; Scholl, Matthias; Grubbs, Robert H.
- CS Arnold and Mabel Beckman Laboratories of Chemical Synthesis Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
- SO Journal of the American Chemical Society (2000), 122(15), 3783-3784 CODEN: JACSAT; ISSN: 0002-7863
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 133:4435
- AB Functionalized olefins are prepd. by cross-metathesis and ring-closing metathesis of electron-deficient olefins employing a ruthenium alkylidene catalyst. The ruthenium catalyst was demonstrated to have high activity and functional group compatibility expanding the range of olefins that can participate in olefin metathesis reactions.
- RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD

## ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
ANSWER 169 OF 187. CAPLUS COPYRIGHT 2002 ACS
L9
TI
    Catalyst complex with carbene ligand
AN
    2000:190990 CAPLUS
DN
    132:238689
    Catalyst complex with carbene ligand
TТ
    Nolan, Steven P.; Huang, Jinkun
IN
    University of New Orleans Foundation, USA
PA
    PCT Int. Appl., 46 pp.
SO
    CODEN: PIXXD2
DT
    Patent
LА
    English
FAN.CNT 2
                     KIND DATE
                                          APPLICATION NO. DATE
    PATENT NO.
                                          _____
                     A1 20000323
                                          WO 1999-US20629 19990909
    WO 2000015339
PΙ
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            CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL,
             IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,
            MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK,
            SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG,
            KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,
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             CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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                                          EP 1999-945604
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                                                           19990909
                                          US 1998-99722P P 19980910
                                          US 1999-115358PP 19990108
                                          WO 1999-US20629W 19990909
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    2001:676668
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                                          APPLICATION NO.
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                                          WO 2001-US5549
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    WO 2001066248
                      A2
                            20010913
PΙ
                     A3
                            20020214
    WO 2001066248
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         RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, TR
                                           US 2000-507958 A220000222
                                           US 2000-507959 A220000222
                                           US 2000-511122 A220000222
                                           US 2000-511420 A220000222
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US	6316380	В1	20011113	US	2000-507958 20000222
				US	1998-99722P P 19980910
				US	1999-121056PP 19990222
				US	1999-154260PP 19990916
US	6362357	B1	20020326	US	2000-511654 20000222
				US	1999-121056PP 19990222
				US	1999-154260PP 19990916
US	6369265	B1	20020409	US	
				US	1998-99722P P 19980910
				US	1999-121056PP 19990222
				US	1999-154260PP 19990916
				US	2000-507958 A 20000222
				US	2000-507959 A 20000222
				US	2000-511420 A 20000222
				US	2000-511654 A 20000222
US	6403801	B1	20020611	US	2000-507959 20000222
				US	1999-121056PP 19990222
				US	1999-154260PP 19990916
US	6403802	B1	20020611	US	2000-511420 20000222
				US	1998-99722P P 19980910
				US	1999-121056PP 19990222
				US	1999-154260PP 19990916

## OS MARPAT 132:238689

AB A catalytic complex comprises: (a) a metal atom selected from the group consisting of ruthenium or osmium; (b) at least one anionic ligand ligated to the 5 metal; (c) at least one nucleophilic carbene ligand ligated to the metal; (d) a further ligand ligated to the metal; and (e) a carbon-contg. ligand ligated to the metal, wherein the carbon-contg. ligand is selected from the group consisting of alkylidene, benzylidene, indenylidene, vinylidene, and allenylidene. The complexes are highly stable to air, moisture and thermal degrdn. The complexes are designed to efficiently carry out a variety of olefin metathesis reactions.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L9 ANSWER 170 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Ruthenium Carbene Complexes with N,N'-Bis(mesityl)imidazol-2-ylidene Ligands: RCM Catalysts of Extended Scope
- AN 2000:153666 CAPLUS
- DN 132:279065
- TI Ruthenium Carbene Complexes with N,N'-Bis(mesityl)imidazol-2-ylidene Ligands: RCM Catalysts of Extended Scope
- AU Fuerstner, Alois; Thiel, Oliver R.; Ackermann, Lutz; Schanz, Hans-Joerg; Nolan, Steven P.
- CS Max-Planck-Institut fuer Kohlenforschung, Muelheim/Ruhr, D-45470, Germany
- SO Journal of Organic Chemistry (2000), 65(7), 2204-2207 CODEN: JOCEAH; ISSN: 0022-3263
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 132:279065
- AB The Ru carbene complexes C12Ru(PCy3)L(L') 3a,b (L = N,N'-dimesityl-2,3-dihydro-1H-imidazol-2-ylidene; L' = benzylidene, 3-phenylindenylidene) constitute excellent precatalysts for ring-closing metathesis (RCM) reactions allowing the formation of tri- and tetrasubstituted cycloalkenes (e.g. 3,4-dimethyl-3-cyclopentene-1,1-

dicarboxylic acid di-Et ester). They also apply to annulations that are beyond the scope of the std. Grubbs carbene Cl2Ru(PCy3)2(:CHPh) (e.g. 1,2,3,4,5,6-hexahydroindene-3a-carboxylic acid Me ester) as well as to ring-closing reactions of acrylic acid derivs. even if the resulting .alpha.,.beta.-unsatd. lactones (or lactams) are tri- or tetrasubstituted (e.g. 5-ethyl-3,4-dimethyl-2(5H)-furanone). The reactivity of 3a is highly dependent on the reaction medium: particularly high reaction rates are obsd. in toluene, although this solvent also leads to an increased tendency of the catalyst to isomerize the double bonds of the substrates.

RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L9 ANSWER 171 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Allene cross-metathesis: synthesis of 1,3-disubstituted allenes
- AN 2000:50891 CAPLUS
- DN 132:207474
- TI Allene cross-metathesis: synthesis of 1,3-disubstituted allenes
- AU Ahmed, Mahmood; Arnauld, Thomas; Barrett, Anthony G. M.; Braddock, D. Christopher; Flack, Kevin; Procopiou, Panayiotis A.
- CS Department of Chemistry, Imperial College of Science Technology and Medicine, London, SW7 2AY, UK
- SO Organic Letters (2000), 2(4), 551-553 CODEN: ORLEF7; ISSN: 1523-7060
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 132:207474
- AB Grubbs catalyst, Cl2(Cy3P)2Ru:CHPh, was found to catalyze the cross-metathesis of monosubstituted allenes RCH:C:CH2 [R = Me(CH2)5, cyclohexylethyl, PhCH2OCH2, etc.] to 1,3-disubstituted allenes RCH:C:CHR in varying yields. A considerable amt. of polymer was also produced. Phenylallenes reacted to give the polymer exclusively; in other reactions,

no product was obtained.

- RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L9 ANSWER 172 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI (p-cymene) RuLC12 (L = 1,3-Bis(2,4,6-trimethylphenyl)imidazol-2-ylidene and
- 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes as
  - Ring Closing Metathesis Catalysts. [Erratum to document cited in CA131:243391]
- AN 1999:757651 CAPLUS
- DN 132:166317
- TI (p-cymene) RuLCl2 (L = 1,3-Bis(2,4,6-trimethylphenyl) imidazol-2-ylidene and
- 1,3-Bis(2,6-diisopropylphenyl)imidazol-2-ylidene) and Related Complexes as
  - Ring Closing Metathesis Catalysts. [Erratum to document cited in CA131:243391]
- AU Jafarpour, Laleh; Huang, Jinkun; Stevens, Edwin D.; Nolan, Steven P.
- CS Department of Chemistry, University of New Orleans, New Orleans, LA, 70148, USA
- SO Organometallics (1999), 18(26), 5735 CODEN: ORGND7; ISSN: 0276-7333
- PB American Chemical Society
- DT Journal

- LA English
- On page 3761, the following sentence should appear in the first full paragraph in the left-hand column: "A fully labeled ORTEP drawing of [(p-cymene)RuLCl(Mes)(=C=C=CPh2)]PF6 (9) is available in the Supporting Information.".
- L9 ANSWER 173 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Influence of Sterically Demanding Carbene Ligation on Catalytic Behavior and Thermal Stability of Ruthenium Olefin Metathesis
  Catalysts
- AN 1999:757389 CAPLUS
- DN 132:78673
- TI Influence of Sterically Demanding Carbene Ligation on Catalytic Behavior and Thermal Stability of **Ruthenium** Olefin **Metathesis** Catalysts
- AU Huang, Jinkun; Schanz, Hans-Joerg; Stevens, Edwin D.; Nolan, Steven P.
- CS Department of Chemistry, University of New Orleans, New Orleans, LA, 70148, USA
- SO Organometallics (1999), 18(25), 5375-5380 CODEN: ORGND7; ISSN: 0276-7333
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 132:78673
- The exchange reaction of one phosphine ligand in Cl2(PCy3)2Ru:CHPh (1; Cy = cyclohexyl) with the sterically demanding carbene ligands 1,3-bis(2,4,6-trimethylphenyl)-4-imidazolin-2-ylidene (IMes), 1,3-bis(4-methylphenyl)-4-imidazolin-2-ylidene (ITol), and 1,3-bis(4-chlorophenyl)-4-imidazolin-2-ylidene (IpCl) gives
  - (PCy3) (IMes) Cl2Ru: CHPh (2), (PCy3) (ITol) Cl2Ru: CHPh (3), and (PCy3) (IpCl) Cl2Ru: CHPh (4). Similarly, one IMes ligand can be

substituted

for one PCyp3 ligand in Cl2(PCyp3)2Ru:CHCH:CMe2 (5; Cyp = cyclopentyl) to produce (PCyp3)(IMes)Cl2Ru:CHPh (6) in high yield. X-ray structure anal. of 6 confirmed a near-square-pyramidal coordination sphere around the metal center. Improved catalytic properties and thermal stability are obsd. for 2 and 6 in comparison to the parent 1 and 5.

- RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L9 ANSWER 174 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Indenylidene-Imidazolylidene Complexes of Ruthenium as Ring-Closing Metathesis Catalysts
- AN 1999:715557 CAPLUS
- DN 132:93443
- TI Indenylidene-Imidazolylidene Complexes of Ruthenium as Ring-Closing Metathesis Catalysts
- AU Jafarpour, Laleh; Schanz, Hans-Joerg; Stevens, Edwin D.; Nolan, Steven P.
- CS Department of Chemistry, University of New Orleans, New Orleans, LA, 70148, USA
- SO Organometallics (1999), 18(25), 5416-5419 CODEN: ORGND7; ISSN: 0276-7333
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 132:93443
- The indenylidene-imidazolylidene complexes of Ru (IMes) (PR3)Cl2Ru(3-phenylinden-1-ylidene) and (IPr)(PR3)Cl2Ru(3-phenylinden-1-ylidene) (IMes = 1,3-bis(2,4,6-trimethylphenyl)imidazol-2-

ylidene, IPr = 1,3-bis(2,6-diisopropylphenyl)imidazol-2-ylidene, and R = Ph, Cy (Cy = cyclohexyl)) were prepd. and are efficient catalyst precursors for ring-closing metathesis. The x-ray crystal structure of (IPr)(PCy3)Cl2Ru(3-phenylinden-1-ylidene) was detd. and clearly shows the coordination of Ru to an indenylidene moiety. The coordination geometry around the ruthenium center is distorted square pyramidal, with the strongest .pi.-acidic ligand (indenylidene) assuming the unique apical site. The square base is defined by the two chlorides which are trans and the donor atoms of the phosphine and the imidazolylidene ligands with the ruthenium center lying 0.3443(12) .ANG. above this plane. The thermal stability of the above-mentioned compds. and their role as catalyst precursors in RCM reactions of di-Et diallylmalonate, diallyltosylamine, and di-Et bis(2-methylallyl)malonate were also presented.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L9 ANSWER 175 OF 187 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of Trisubstituted Alkenes via Olefin Cross-Metathesis
- AN 1999:696959 CAPLUS
- DN 132:78128
- TI Synthesis of Trisubstituted Alkenes via Olefin Cross-Metathesis
- AU Chatterjee, Arnab K.; Grubbs, Robert H.
- CS Arnold and Mabel Beckman Laboratory of Chemical Synthesis Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
- SO Organic Letters (1999), 1(11), 1751-1753 CODEN: ORLEF7; ISSN: 1523-7060
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 132:78128

GI

Me

$$R^3-N$$
 $N-R^3$ 
 $R^1$ 
 Trisubstituted alkenes, e.g. I, have been prepd. for the first time via intermol. olefin cross-metathesis in good yields with moderate E selectivity using 1,3-dimesityl-4,5-dihydroimidazol-2-ylidene ruthenium alkylidene complexes II [R1 = Ph, (Me)2C:CH; R2 = cyclohexyl; R3 = 2,4,6-(Me)3C6H2]. In addn., protected alcs. near the geminal disubstituted olefin improve reactivity for cross-metathesis.

RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 176 OF 187 CAPLUS COPYRIGHT 2002 ACS

- TI Coordinatively Unsaturated 16-Electron Ruthenium Allenylidene Complexes: Synthetic, Structural, and Catalytic Studies
- AN 1999:687193 CAPLUS
- DN 132:50099
- TI Coordinatively Unsaturated 16-Electron Ruthenium Allenylidene Complexes: Synthetic, Structural, and Catalytic Studies
- AU Schanz, Hans-Joerg; Jafarpour, Laleh; Stevens, Edwin D.; Nolan, Steven P.
- CS Department of Chemistry, University of New Orleans, New Orleans, LA, 70148, USA
- SO Organometallics (1999), 18(24), 5187-5190 CODEN: ORGND7; ISSN: 0276-7333
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 132:50099
- AB The 1-pot reactions of [(p-cymene)RuCl2]2 (1) or (PPh3)4RuCl2 (2) with 2 equiv of PCy3 and 3,3-diphenylpropyn-3-ol afford the novel 16-electron Ru allenylidene complex (PCy3)2Cl2Ru(:C:C:CPh2) (3) in high yields. Substitution of one PCy3 ligand in 3 for one nucleophilic carbene

ligand, IMes [1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene], affords (PCy3)(IMes)Cl2Ru(:C:C:CPh2) (4). Single-crystal x-ray structure analyses of complexes 3 and 4 were performed. Thermal stability of complexes 3

and

4 was studied, and their catalytic activity promoting ring-closing metathesis (RCM) of various substrates was tested.

RE.CNT 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE 'REGISTRY' ENTERED AT 09:27:23 ON 30 DEC 2002

- L1 STRUCTURE UPLOADED
- L2 172349 SEARCH L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 09:28:10 ON 30 DEC 2002

- L3 19361 L2
- L4 86501 RUTHENIUM OR RU
- L5 33821 OSMIUM OR OS
- L6 109558 L4 OR L5
- L7 10423 METATHESIS
- L8 1522 L6 AND L7
- L9 187 L3 AND L8

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NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA

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=> olefin metathesis

84795 OLEFIN

85216 OLEFINS

130848 OLEFIN

(OLEFIN OR OLEFINS)

10376 METATHESIS

155 METATHESES

10423 METATHESIS

(METATHESIS OR METATHESES)

L1 1493 OLEFIN METATHESIS

(OLEFIN (W) METATHESIS)

=> trisubstituted

L2 6651 TRISUBSTITUTED

=> 11 and 12

L3 9 L1 AND L2

=> d 13 1-9 ti

- L3 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and Relative

Configuration, and Evaluation of Synthetic Analogues

- L3 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Total Synthesis and Absolute Configuration of Liverwort Diterpenes,
- (-)-13(15)E,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene and (-)-13(15)Z,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene, by Use of the Ring Closing Metathesis Reaction Applied to Seven-Membered Carbocycles with a **Trisubstituted** Double Bond
- L3 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Metal complexes for the synthesis of molecules and materials
- L3 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Ruthenium complexes for olefin metathesis
- L3 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Synthetic methodology for the construction of structurally diverse cyclopropanes
- L3 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of the Hydroazulene Ring System of Guanacastepene

L3 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS

- TI Exploiting the Reversibility of Olefin Metathesis. Syntheses of Macrocyclic Trisubstituted Alkenes and (R,R)-(-)-Pyrenophorin
- L3 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI A series of ruthenium(II) ester-carbene complexes as **olefin** metathesis initiators: metathesis of acrylates
- L3 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Titanacyclobutanes derived from strained, cyclic olefins: the living polymerization of norbornene
- => d 13 1-9 ti fbib abs
- L3 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and Relative

Configuration, and Evaluation of Synthetic Analogues

AN 2002:585811 CAPLUS

DN 137:294812

TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and Relative

Configuration, and Evaluation of Synthetic Analogues

AU Trost, Barry M.; Gunzner, Janet L.; Dirat, Olivier; Rhee, Young H.

CS Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA

SO Journal of the American Chemical Society (2002), 124(35), 10396-10415 CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society

DT Journal

LA English

GI

- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- AB The total synthesis of the novel antitumor agent callipeltoside A (I), as well as several analogs, is accomplished and allows assignment of the stereochem. not previously established. A convergent strategy is employed

wherein the target is dissected into three units-the core macrolactone

II, the sugar callipeltose, and a cyclopropyl bearing chain. The strategy for

the synthesis of the macrolactone derives from employment of diastereoselective aldol reactions that emanate from an 11 carbon piece. The stereochem. of the latter derives from the chiral pool and two asym. reactions—a ketone redn. using CBS—oxazaborolidine and a Pd catalyzed asym. allylic alkylation (AAA). The novelty of the latter protocol is

control of regioselectivity as well as abs. configuration. The trisubstituted olefin is generated using an alkene-alkyne coupling to create a trisubstituted olefin with complete control of geometry. The excellent chemo- and regioselectivity highlights the synthetic potential of this new ruthenium catalyzed process. The

macrolactonization employs in situ formation of an acylketene generated by

the thermolysis of a m-dioxolenone. Two strategies evolved for attachment

of the side chain-one based upon olefination and a second upon olefin metathesis. The higher efficiency of the latter makes it the method of choice. A novel one pot olefin metathesis-Takai olefination protocol that should be broadly applicable is developed. The sugar is attached by a glycosylation by employing the O-trichloroacetimidate III. This route provided both C-13 epimers of the macrolactone by using either enantiomeric ligand in the Pd AAA reaction. It also provided both trans-chlorocyclopropane diastereomers of I which allows the C-20 and C-21 configuration to be established as S and R, resp. The convergent nature of the synthesis in which the largest piece, the macrolactone, require only 16 linear steps imparts utility to this strategy for the establishment of the structure-activity relationship. Initial biol. testing demonstrates the irrelevance of the chloro substituent and the necessity of the sugar.

RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Total Synthesis and Absolute Configuration of Liverwort Diterpenes,
- (-)-13(15)E,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene and (-)-13(15)Z,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene, by Use of the Ring Closing Metathesis Reaction Applied to Seven-Membered Carbocycles with a **Trisubstituted** Double Bond
- AN 2002:565387 CAPLUS
- DN 137:263194
- TI Total Synthesis and Absolute Configuration of Liverwort Diterpenes,
- (-)-13(15)E,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene and (-)-13(15)Z,16E-3.beta.,4.beta.-Epoxy-18-hydroxysphenoloba-13(15),16-diene, by Use of the Ring Closing Metathesis Reaction Applied to Seven-Membered Carbocycles with a **Trisubstituted** Double Bond
- AU Nakashima, Katsuyuki; Inoue, Kosuke; Sono, Masakazu; Tori, Motoo
- CS Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Tokushima,

770-8514, Japan

- SO Journal of Organic Chemistry (2002), 67(17), 6034-6040 CODEN: JOCEAH; ISSN: 0022-3263
- PB American Chemical Society
- DT Journal
- LA English
- AB Seven-membered cyclic compds. possessing **trisubstituted** double bonds have been effectively constructed employing the Grubbs catalyst to effect **olefin metathesis**. The keto ester does not undergo cyclization; however, alcs. protected by the silyl groups

smoothly

cyclized into seven-membered compds. The product was successfully converted to (-)-13(15) E, 16E-3. beta., 4. beta. -epoxy-18-hydroxysphenoloba-13(15), 16-diene and (-)-13(15) Z, 16E-3. beta., 4. beta. -epoxy-18-hydroxysphenoloba-13(15), 16-diene, liverwort diterpenes isolated from Anastrophyllum auritum to establish the abs. configuration.

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Metal complexes for the synthesis of molecules and materials
AN 2002:189967 CAPLUS
TI Metal complexes for the synthesis of molecules and materials
AU Grubbs, Robert H.
CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Abstracts of Papers, 223rd ACS National Meeting, Orlando, FL, United States, April 7-11, 2002 (2002), INOR-364 Publisher: American Chemical Society, Washington, D. C.

CODEN: 69CKQP

DT Conference; Meeting Abstract

LA English

AB Over the past few years the **olefin metathesis** reaction has emerged as a powerful tool for the formation of C-C bonds in large and

small mols. Ring opening (ROMP) and closing metathesis (RCM) has seen

the

broadest applications with cross metathesis (XMET) finding an increasing role. Key to these advances is the availability of well-defined alkylidene-metal complexes that catalyze this transformation. At this time the most broadly used are the bisphosphine dichlororuthenium alkylidene complexes. To increase the activity and selectivity of the ruthenium family, new derivs. have been prepd. These derivs. include ruthenium complexes with a family of imidazolinylidene ligands. These designs are based on the mechanistic studies that demonstrated that the activity of the system was related to the large cone angle and basicity

οf

the cyclohexylphosphine. Continued improvements based on these mechanistic observations have led to a new family of functional group tolerant ruthenium catalysts with very high activity and efficiency.

This

increased activity provides routes for the synthesis of trisubstituted double bonds by cross metathesis. In addn., these complexes allow the stereoselective synthesis of unsatd. carbonyls by simple cross metathesis of acrylates and terminal olefins. A no. of functional polymers have been prepd. that exploit the abilities of these new members of the family of ruthenium based olefin metathesis catalysts.

- L3 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Ruthenium complexes for olefin metathesis
- AN 2001:202526 CAPLUS
- TI Ruthenium complexes for olefin metathesis
- AU Grubbs, Robert H.
- CS Chemistry 164-30CR, Caltech, Pasadena, CA, 91125, USA
- SO Abstr. Pap. Am. Chem. Soc. (2001), 221st, ORGN-042 CODEN: ACSRAL; ISSN: 0065-7727
- PB American Chemical Society
- DT Journal; Meeting Abstract
- LA English

AB Over the past few years the **olefin metathesis** reaction has emerged as a powerful tool for the formation of C-C bonds in complex mols. Ring closing metathesis (RCM) has seen the broadest applications with cross metathesis (XMET) finding an increasing role. At this time

the

most broadly used catalysts are the bisphosphine dichlororuthenium alkylidene complexes. To increase the activity and selectivity of the ruthenium family, new derivs. have been prepd. Continued improvements based on mechanistic observations have led to a new family of functional

group tolerant ruthenium catalysts with very high activity and efficiency.

This increased activity provides routes for the synthesis of trisubstituted double bonds and the stereoselective synthesis of unsatd. carbonyls by simple cross metathesis of acrylates and terminal olefins. A no. of functional polymers have been prepd. that exploit the abilities of these new members of the family of ruthenium based olefin metathesis catalysts.

- L3 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Synthetic methodology for the construction of structurally diverse cyclopropanes
- AN 2001:168541 CAPLUS
- DN 134:340291
- TI Synthetic methodology for the construction of structurally diverse cyclopropanes
- AU Taylor, Richard E.; Engelhardt, F. Conrad; Schmitt, Michael J.; Yuan, Haiging
- CS Department of Chemistry and Biochemistry, University of Notre Dame, Notre Dame, IN, 6556-5670, USA
- Journal of the American Chemical Society (2001), 123(13), 2964-2969 CODEN: JACSAT; ISSN: 0002-7863
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 134:340291
- GI

the

AB Practical and efficient routes for the stereoselective conversion of homoallylic alcs., e.g., syn-Ph(CH2)2CH(OH)CHMeCH:CH2, to diastereomerically pure cis-, trans-1,2-disubstituted, and 1,2,3-trisubstituted cyclopropanes, e.g., I, have been developed. The routes are highlighted by olefin metathesis strategies and the stabilization of an intermediate cyclopropylcarbinyl cation by

.beta.-silicon effect. The stereospecificity of the key cyclization step has been rationalized by transition-state models in which the important determinants include (i) a minimization of the steric interactions about the forming cyclopropane bond and (ii) an inversion of stereochem. at the activated homoallylic alc. position. The cyclopropane product chirality is ultimately controlled by the choice of homoallylic alc. starting material. Through this method nonracemic, diasteromerically pure homoallylic alcs. can be converted in two steps to nonracemic, diasteromerically pure cyclopropane structural units. The scope and limitations of this versatile methodol. have also been investigated.

RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of the Hydroazulene Ring System of Guanacastepene

AN 2001:44893 CAPLUS

DN 134:222885

TI Synthesis of the Hydroazulene Ring System of Guanacastepene

AU Snider, Barry B.; Hawryluk, Natalie A.

CS Department of Chemistry, Brandeis University, Waltham, MA, 02454-9110,

USA

SO Organic Letters (2001), 3(4), 569-572

CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English

GI

Me<sub>3</sub>CO<sub>2</sub> 
$$O$$
  $Me$   $CH_2$   $Pr-i$   $II$ 

AB A 12-step synthesis of I, the functionalized hydroazulenone ring of guanacastepene, has been completed using the EtAlCl2-initiated cyclization

of .gamma.,.delta.-unsatd. ketone II to construct a 2,2,3trisubstituted cyclopentanone, the palladium-catalyzed coupling of vinylmagnesium bromide with a enol triflate to prep. triene III, and olefin metathesis of triene III to form the key hydroazulene.

RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS
- TI Exploiting the Reversibility of **Olefin Metathesis**. Syntheses of Macrocyclic **Trisubstituted** Alkenes and (R,R)-(-)-Pyrenophorin
- AN 2001:27836 CAPLUS
- DN 134:207635
- TI Exploiting the Reversibility of Olefin Metathesis. Syntheses of Macrocyclic Trisubstituted Alkenes and (R,R)-(-)-Pyrenophorin
- AU Fuerstner, Alois; Thiel, Oliver R.; Ackermann, Lutz
- CS Max-Planck-Institut fuer Kohlenforschung, Muelheim/Ruhr, D-45470, Germany
- SO Organic Letters (2001), 3(3), 449-451

CODEN: ORLEF7; ISSN: 1523-7060
PB American Chemical Society
DT Journal
LA English

CASREACT 134:207635

OS GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The formation of the trisubstituted cycloalkene I by RCM (ring-closing metathesis) of diene II proceeds via an acyclic dimer, thus demonstrating the ready reversibility of olefin metathesis if catalyzed by "second generation" ruthenium carbene complexes. When applied to acrylate III, these catalysts trigger a cyclooligomerization process that evolves with time and serves as key step

en route to the lactide antibiotic (-)-pyrenophorin (IV).

RE.CNT 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI A series of ruthenium(II) ester-carbene complexes as **olefin**metathesis initiators: metathesis of acrylates

AN 2000:443431 CAPLUS

DN 133:207970

TI A series of ruthenium(II) ester-carbene complexes as **olefin** metathesis initiators: metathesis of acrylates

AU Ulman, M.; Belderrain, T. R.; Grubbs, R. H.

CS Division of Chemistry and Chemical Engineering, The Arnold and Mabel Beckman Laboratory of Chemical Synthesis, California Institute of Technology, Pasadena, CA, 91125, USA

SO Tetrahedron Letters (2000), 41(24), 4689-4693 CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

AB A series of ester-carbene complexes, Cl2(Cy3P)2Ru:CHZ (Z = CO2R, R = Me, p-tolyl, t-Bu, iPr, cyclohexyl, 1-adamantyl, Ph), were synthesized.

These

complexes were highly active for the metathesis of olefinic substrates, including acrylates and **trisubstituted** olefins. In addn., the ester-carbene moiety is thermodynamically high in energy. As a result, these complexes react to ring-open cyclohexene by metathesis to alleviate the thermodn. strain of the ester-carbene ligand.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS

TI Titanacyclobutanes derived from strained, cyclic olefins: the living polymerization of norbornene

AN 1986:89031 CAPLUS

DN 104:89031

TI Titanacyclobutanes derived from strained, cyclic olefins: the living polymerization of norbornene

AU Gilliom, Laura R.; Grubbs, Robert H.

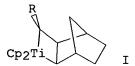
CS Lab. Chem., California Inst. Technol., Pasadena, CA, 91125, USA

Journal of the American Chemical Society (1986), 108(4), 733-42

CODEN: JACSAT; ISSN: 0002-7863

DT Journal LA English

GΙ



I (R = H, Cp = .eta.5-cyclopentadienyl) (II) [99798-40-0] and I (R = AB 1,1-dimethylallyl, Cp = as above) (III) [99798-42-2] were prepd. from norbornene [498-66-8] and Cp2Ti:CH2 and Cp2Ti:CHCMe2CH:CH2, resp. On thermolysis, both II and III produced products consistent with the intermediacy of .alpha.-substituted titanocene carbene compds. Thermolysis at 65.degree. in the presence of excess norbornene afforded ring-opened polynorbornene [25038-76-0] with cis-trans ratio 38:62. The polymns. were highly efficient in catalyst and yielded polymers of controlled mol. wt. Polymer prepd. from III showed polydispersities .ltoreq.1.08. The mol. wt. distributions of polymers obtained with II were always broader than those obtained with III. The kinetics of both polymns. were zero order in monomer with .DELTA.G.thermod.338 = 24 kcal/mol, .DELTA.H.thermod. = 27 kcal/mol, and .DELTA.S.thermod. = 9 eu. Polymn. with II showed an induction period corresponding to a 1st-order decay of II with t1/2 = 80 min at 65.degree., whereas the polymn. with

was linear throughout. Simultaneous incorporation of norbornene-d2 into the polymer by all active sites confirmed that this system was best described as a living polymer. The polymn. mechanism was discussed as an olefin metathesis with rate-limiting cleavage of trisubstituted titanacyclobutanes affording high-energy carbene intermediates.

=> logoff hold		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	30.81	33.54
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-5.58	-5.58

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### PASSWORD:

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COST IN U.S. DOLLARS FULL ESTIMATED COST	SINCE FILE ENTRY 30.81	TOTAL SESSION 33.54
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL SESSION
CA SUBSCRIBER PRICE	ENTRY -5.58	-5.58
=> COST IN U.S. DOLLARS	SINCE FILE	TOTAL SESSION
FULL ESTIMATED COST	34.77	37.50
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-5.58	-5.58

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LAST RELOADED: Dec 20, 2002 (20021220/UP).

=>		
NAME	CREATED	NOTES/TITLE
	<b>-</b>	
ALKYLATIN/L	13 DEC 2001	9 L-NUMBERS
CATWLIGNDS/A	TEMP	187 ANSWERS IN FILE CAPLUS
ESTERODOR/L	05 SEP 2002	42 L-NUMBERS
INDIUMCL3/A	30 MAY 2001	1 ANSWER IN FILE REGISTRY
LIGANDS/A	TEMP	19361 ANSWERS IN FILE CAPLUS
LTWENTAUGFOR/A	04 AUG 2001	72 ANSWERS IN FILE CAPLUS
METATHESIS/L	TEMP	9 L-NUMBERS
NEOTAMECRYST/A	24 APR 2001	59 ANSWERS IN FILE CAPLUS
NVLARMFULGEN/A	19 APR 2001	196 ANSWERS IN FILE REGISTRY
POHBENZALDEH/A	10 JUL 2001	5519 ANSWERS IN FILE CAPLUS
PROSTACMPD15/A	01 AUG 2001	34 ANSWERS IN FILE CAPLUS
STILLEAPP/L	07 JAN 2002	17 L-NUMBERS
TWOAMINOPOLY/Q	16 APR 2001	UPLOADED STRUCTURE

NO SAVED SDI REQUESTS

=>
COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
0.06 37.56

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE ENTRY TOTAL SESSION

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=>							
L4		STR					
L5	(	172349) SEA	FILE=REGISTR	Y SSS F	UL L4		
L6	(	19361) SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L5	
L7	(	86501) SEA	FILE=CAPLUS	ABB=ON	ЪΓΩ=ΟΝ	RUTHENIUM OF	RU RU
L8	(	33821) SEA	FILE=CAPLUS	ABB=ON	PLU=ON	OSMIUM OR OS	3
L9	(	109558) SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L7 OR L8	
L10	(	10423) SEA	FILE=CAPLUS	ABB=ON	PLU=ON	METATHESIS	
L11	(	1522) SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L9 AND L10	
L12		187 SEA	FILE=CAPLUS	ABB=ON	PLU≕ON	L6 AND L11	

<---->

=> logoff hold		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
•	ENTRY	SESSION
FULL ESTIMATED COST	5.54	43.10
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-5.58

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STN INTERNATIONAL SESSION SUSPENDED AT 11:48:20 ON 30 DEC 2002

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	
FULL ESTIMATED COST	5.54	43.10
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-5.58
=> file reg COST IN U.S. DOLLARS	SINCE FILE	TOTAL
0001 111 0101 2011110	ENTRY	SESSION
FULL ESTIMATED COST	5.54	43.10
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-5.58

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TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

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Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> e 2-methylpropen/cn

E1	1	2-METHYLPROPANOYL ISOCYANATE/CN
E2	1	2-METHYLPROPANOYLTRIPROPYLSTANNANE/CN
E3	0>	2-METHYLPROPEN/CN
E4	_	2-METHYLPROPENAL/CN
E5	1	2-METHYLPROPENAMIDE/CN
E6	1	2-METHYLPROPENE/CN

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2-METHYLPROPENE POLYMER/CN
E7
E8
             1
                   2-METHYLPROPENE RADICAL CATION/CN
                   2-METHYLPROPENE SECONDARY OZONIDE/CN
E9
             1
            1
                   2-METHYLPROPENE SULFIDE/CN
E10
                   2-METHYLPROPENE-1-PROPENE COPOLYMER/CN
            1
E11
                   2-METHYLPROPENE-PROPENE POLYMER/CN
            1
E12
=> e6
             1 2-METHYLPROPENE/CN
L16
=> d 116
L16 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
     115-11-7 REGISTRY
     1-Propene, 2-methyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Propene, 2-methyl- (8CI)
OTHER NAMES:
     .gamma.-Butylene
     1,1-Dimethylethene
CN
    1,1-Dimethylethylene
CN
CN
    2-Methyl-1-propene
    2-Methyl-2-propene
CN
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     2-Methylpropene
CN
     2-Methylpropylene
     i-Butene
CN
     iso-Butene
CN
CN
     Isobutene
CN
     Isobutylene
CN
     Isopropylidenemethylene
FS
     3D CONCORD
MF
     C4 H8
CI
     COM
                 AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC
     STN Files:
BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX,
CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT,
ENCOMPLIT2, ENCOMPPAT,
       ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE,
MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE,
TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB
         (*File contains numerically searchable property data)
                     DSL**, EINECS**, TSCA**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
    CH<sub>2</sub>
H3C-C-CH3
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
           11935 REFERENCES IN FILE CA (1962 TO DATE)
```

449 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

11941 REFERENCES IN FILE CAPLUS (1962 TO DATE)
23 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

```
=> e propene/cn
                  PROPENAL-2-VINYLPYRIDINE COPOLYMER/CN
            1
             1
                  PROPENAMIDE/CN
E.2
            1 --> PROPENE/CN
Е3
                  PROPENE CATION RADICAL/CN
E4
            1
                   PROPENE COMPOUND WITH CHLORINE (1:1)/CN
E5
            1
                   PROPENE DICATION/CN
            1
E6
            1
                  PROPENE HEPTAMER/CN
E7
                  PROPENE HOMOPOLYMER/CN
E8
            1
            1
                  PROPENE ISOTACTIC POLYMER/CN
F.9
            1
                  PROPENE MONOOXYGENASE/CN
E10
            1
                  PROPENE OCTAHYDRATE/CN
E11
            1
                  PROPENE OXIDE/CN
E12
=> e3
            1 PROPENE/CN
L17
=> d 117
L17 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
    115-07-1 REGISTRY
     1-Propene (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
    Propene (8CI)
OTHER NAMES:
CN
     1-Propylene
CN
    Methylethylene
CN
    Propylene
CN
    R 1270
FS
     3D CONCORD
     676-63-1, 33004-01-2
DR
MF
    C3 H6
CI
     COM
     STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS,
LC
BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN,
CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*,
DIPPR*, EMBASE, ENCOMPLIT,
       ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB,
IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT,
RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPATZ, USPATFULL, VTB
         (*File contains numerically searchable property data)
                     DSL**, EINECS**, TSCA**
     Other Sources:
         (**Enter CHEMLIST File for up-to-date regulatory information)
H3C-CH-CH2
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
           32234 REFERENCES IN FILE CA (1962 TO DATE)
            2402 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           32250 REFERENCES IN FILE CAPLUS (1962 TO DATE)
              28 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
=> e 2-methyl-2-butene/cn
                   2-METHYL-2-BUTENAL/CN
E1
            1
```

```
2-METHYL-2-BUTENAMIDE/CN
E2
E3
            1 --> 2-METHYL-2-BUTENE/CN
E4
                  2-METHYL-2-BUTENE CATION RADICAL/CN
                  2-METHYL-2-BUTENE COMPOUND WITH BROMINE (1:1)/CN
E5
                  2-METHYL-2-BUTENE COMPOUND WITH CHLORINE (1:1)/CN
E6
            1
                  2-METHYL-2-BUTENE DIMER/CN
E7
            1
                 2-METHYL-2-BUTENE OXIDE/CN
E8
            1
                  2-METHYL-2-BUTENE RADICAL CATION/CN
E9
            1
                  2-METHYL-2-BUTENE TRIMER/CN
E10
E11
            1
2-METHYL-2-BUTENE-.ALPHA.-METHYLSTYRENE-CIS-2-PENTENE-PIPERYLENE COPOLYMER/CN
E12
            1
                  2-METHYL-2-BUTENE-.ALPHA.-METHYLSTYRENE-PIPERYLENE
COPOLYMER/CN
=> e3
           1 2-METHYL-2-BUTENE/CN
L18
=> d 118
L18 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
    513-35-9 REGISTRY
    2-Butene, 2-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
    .beta.-Isoamylene
    1,1,2-Trimethylethylene
CN
    2-Methyl-2-butene
CN
    3-Methyl-2-butene
CN
    Amylene
CN
CN
    Trimethylethene
    Trimethylethylene
CN
    3D CONCORD.
FS
    C5 H10
MF
CI
    COM
    STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA,
CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE,
CIN, CSCHEM, DETHERM*, DIPPR*, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2,
SPECINFO, TOXCENTER, ULIDAT, USPAT2, USPATFULL
         (*File contains numerically searchable property data)
    Other Sources: DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
    CH3
H3C-C= CH-CH3
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
           3492 REFERENCES IN FILE CA (1962 TO DATE)
             31 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           3493 REFERENCES IN FILE CAPLUS (1962 TO DATE)
              1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
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=> file caplu

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
17.88 60.98

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
ENTRY SESSION
CA SUBSCRIBER PRICE

0.00 -5.58

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FILE COVERS 1907 - 30 Dec 2002 VOL 138 ISS 1 FILE LAST UPDATED: 29 Dec 2002 (20021229/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> 116 L19 11943 L16

=> 117 L20 32254 L17

=> 118 L21 3494 L18

=> 119 and 120 and 121 L22 513 L19 AND L20 AND L21

=> d his

(FILE 'HOME' ENTERED AT 10:51:22 ON 30 DEC 2002)

FILE 'CAPLUS' ENTERED AT 10:58:52 ON 30 DEC 2002

L1 1493 OLEFIN METATHESIS L2 6651 TRISUBSTITUTED

L3 9 L1 AND L2

FILE 'STNGUIDE' ENTERED AT 11:39:33 ON 30 DEC 2002

FILE 'CAPLUS' ENTERED AT 11:40:12 ON 30 DEC 2002

# ACT CATWLIGNDS/A

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L4
                 STR
         172349) SEA FILE=REGISTRY SSS FUL L4
L5
           19361) SEA FILE=CAPLUS ABB=ON PLU=ON L5
L6
          86501) SEA FILE=CAPLUS ABB=ON PLU=ON RUTHENIUM OR RU
L7
           33821) SEA FILE=CAPLUS ABB=ON PLU=ON OSMIUM OR OS
L8
         109558) SEA FILE=CAPLUS ABB=ON PLU=ON L7 OR L8
L9
         10423) SEA FILE=CAPLUS ABB=ON PLU=ON METATHESIS
1522) SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND L10
187 SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L11
L10 (
L11 (
L12
                 ACT LIGANDS/A
                <del>-----</del>
L13
                 STR
         172349) SEA FILE=REGISTRY SSS FUL L13
L14 (
          19361 SEA FILE=CAPLUS ABB=ON PLU=ON L14
L15
     FILE 'REGISTRY' ENTERED AT 11:51:41 ON 30 DEC 2002
                 E 2-METHYLPROPEN/CN
L16
               1 E6
                 E PROPENE/CN
               1 E3
L17
                 E 2-METHYL-2-BUTENE/CN
               1 E3
L18
     FILE 'CAPLUS' ENTERED AT 11:53:23 ON 30 DEC 2002
L19
           11943 L16
L20
           32254 L17
L21
            3494 L18
             513 L19 AND L20 AND L21
L22
=> 122 and 19
          69421 RUTHENIUM
             20 RUTHENIUMS
          69421 RUTHENIUM
                   (RUTHENIUM OR RUTHENIUMS)
          54409 RU
            168 RUS
          54555 RU
                   (RU OR RUS)
          19678 OSMIUM
              5 OSMIUMS
          19679 OSMIUM
                  (OSMIUM OR OSMIUMS)
          23390 OS
             69 OSES
            248 ORA
             17 ORAS
             12 OSAR
             75 OSSA
          23801 OS
                   (OS OR OSES OR ORA OR ORAS OR OSAR OR OSSA)
L23
              6 L22 AND L9
=> d 123 ti fbib abs
```

L23 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2002 ACS

TI Selected electrophilic addition reactions of representative acyclic alkenes

AN 1999:499827 CAPLUS

DN 131:228349

TI Selected electrophilic addition reactions of representative acyclic alkenes

AU Nelson, Donna J.

CS Department of Chemistry and Biochemistry, University of Oklahoma, Norman, OK, 73019, USA

SO Tetrahedron Letters (1999), 40(32), 5823-5826 CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

AB In the reactions of dichlorocarbene, nitrosyl chloride, and **osmium** tetroxide with representative acyclic alkenes, alkene first ionization potentials (IP's) are correlated against log alkene relative reactivities (krel's). Each

reaction gives a single line of correlation, which includes all alkenes studied regardless of the degree of substitution.

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

#### => d 123 2-6 ti

- L23 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS
  TI Metathesis process and catalysts for the manufacture of propylene from
- mixtures of 1-butene, 2-butene and isobutene
- L23 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2002 ACS
  TI Toward an Understanding of the High Enantioselectivity in the Osmium
  -Catalyzed Asymmetric Dihydroxylation. 3. New Insights into Isomeric Forms of
  the Putative Osmaoxetane Intermediate
- L23 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2002 ACS
- TI Performance-oriented packaging standards; changes to classification, hazard communication, packaging and handling requirements based on UN standards and agency initiative
- L23 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
- TI Catalytic homologation of olefins to higher and lower olefins: a metathesis related reaction
- L23 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2002 ACS
- TI Oxidation catalyst

## => d 123 2,5 ti fbib abs

- L23 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2002 ACS
- TI Metathesis process and catalysts for the manufacture of propylene from mixtures of 1-butene, 2-butene and isobutene
- AN 1999:265988 CAPLUS
- DN 130:267876
- TI Metathesis process and catalysts for the manufacture of propylene from mixtures of 1-butene, 2-butene and isobutene
- IN Schwab, Peter; Schulz, Michael
- PA BASF A.-G., Germany

Ger. Offen., 12 pp. SO

CODEN: GWXXBX

CN 1218787

DT Patent .

German LΑ

FAN	.CNT 1				
	PATENT NO.	KIND DAT	rE	APPLICATION NO.	DATE
					<del></del>
PΙ	DE 19746040	A1 199	990422	DE 1997-19746040	19971017
	TW 426651	в 200	010321	TW 1998-87116887	19981012
				DE 1997-19746040A	A 19971017
	EP 915072	A1 199	990512	EP 1998-119484	19981015
	R: AT, BE,	CH, DE, DI	K, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT,
IE,	SI, LT, LV, FI,	RO			
				DE 1997-19746040A	A 19971017
	CA 2249019	AA 199	990417	CA 1998-2249019	19981016
	•			DE 1997-19746040A	¥ 19971017
	JP 11217340	A2 199	990810	JP 1998-295739	19981016
				DE 1997-19746040A	A 19971017

Propene (I) is prepd in high yield and selectivity without the need for the use of excess quantities of ethylene in a process comprising: (A) the metathesis of mixts. of 1-butene, 2-butene, and isobutene in the presence of a catalyst system

19990609

contg. .gtoreq.1 of Group VIB and/or Group VIIB (e.g., Re207/Al203) and/or Group VIII element compd(s). forming a mixt. of propene, 2-pentenes and 2-methyl-2-butene; (B) sepg. the I from the 2-pentenes and 2-methyl-2-butene mixt.; (C)

subjecting the mixt. of 2-pentenes and 2-methyl-2-butene to metathesis with ethylene to form a mixt. of I, 1-butene, and isobutene; (D) sepg. the I from the mixt. of 1-butene and isobutene; and recycling the 1-butene and isobutene to step A.

Process flow diagrams are presented.

Α

- ANSWER 5 OF 6 CAPLUS COPYRIGHT 2002 ACS
- Catalytic homologation of olefins to higher and lower olefins: a metathesis related reaction
- 1985:148672 CAPLUS MA
- 102:148672 DN
- Catalytic homologation of olefins to higher and lower olefins: a TImetathesis related reaction
- Leconte, M.; Theolier, A.; Basset, J. M.
- Inst. Rech. Catal., CNRS, Villeurbanne, 69626, Fr. CS
- Journal of Molecular Catalysis (1985), 28(1-3), 217-31 SO CODEN: JMCADS; ISSN: 0304-5102
- DT Journal
- T.A English
- With Fe-SiO2, Ru-SiO2 and Os-SiO2 ethylene, propene, and isobutene disproportionated at 200-300.degree. to yield higher and lower olefins and methane. The reaction is catalytic when H2 is present. The mechanism of C-C bond

formation in this reaction and in Fischer-Tropsch reactions using the above catalysts was the same.

=> logoff hold COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 17.96 78.94

CN 1998-124565 19981017

DE 1997-19746040A 19971017

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE ENTRY TOTAL SESSION

CA SUBSCRIBER PRICE

-1.86

-7.44

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 11:58:14 ON 30 DEC 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1623paz

#### PASSWORD:

\* \* \* \* \* RECONNECTED TO STN INTERNATIONAL \* \* \* \* \* \* SESSION RESUMED IN FILE 'CAPLUS' AT 12:15:30 ON 30 DEC 2002 FILE 'CAPLUS' ENTERED AT 12:15:30 ON 30 DEC 2002 COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	17.96	78.94
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
CA SUBSCRIBER PRICE	ENTRY -1.86	SESSION -7.44

- => trisubstituted (alkene or olefin)
  MISSING OPERATOR 'BSTITUTED (ALKENE'
  The search profile that was entered contains terms or
  nested terms that are not separated by a logical operator.
- => (trisubstituted (alkene or olefin))
  MISSING OPERATOR 'BSTITUTED (ALKENE'
  The search profile that was entered contains terms or
  nested terms that are not separated by a logical operator.
- => search (trisubstituted (alkene or olefin))
  MISSING OPERATOR 'BSTITUTED (ALKENE'
  The search profile that was entered contains terms or
  nested terms that are not separated by a logical operator.
- => search (trisubstituted W (alkene or olefin))
  MISSING OPERATOR 'W (ALKENE'
  The search profile that was entered contains terms or
  nested terms that are not separated by a logical operator.
- => trisubstituted alkene

6651 TRISUBSTITUTED

29334 ALKENE

71880 ALKENES

82217 ALKENE

(ALKENE OR ALKENES)

4 239 TRISUBSTITUTED ALKENE

(TRISUBSTITUTED (W) ALKENE)

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=> trisubstituted olefin
           6651 TRISUBSTITUTED
           84795 OLEFIN
           85216 OLEFINS
         130848 OLEFIN
                     (OLEFIN OR OLEFINS)
L25
             329 TRISUBSTITUTED OLEFIN
                   (TRISUBSTITUTED (W) OLEFIN)
=> 124 or 125
            548 L24 OR L25
L26
=> d his
      (FILE 'HOME' ENTERED AT 10:51:22 ON 30 DEC 2002)
      FILE 'CAPLUS' ENTERED AT 10:58:52 ON 30 DEC 2002
             1493 OLEFIN METATHESIS
T.1
             6651 TRISUBSTITUTED
L_2
L3
                 9 L1 AND L2
      FILE 'STNGUIDE' ENTERED AT 11:39:33 ON 30 DEC 2002
      FILE 'CAPLUS' ENTERED AT 11:40:12 ON 30 DEC 2002
                   ACT CATWLIGNDS/A
L4
                    STR
L5
           172349) SEA FILE=REGISTRY SSS FUL L4
            19361) SEA FILE=CAPLUS ABB=ON PLU=ON L5
L6
          86501) SEA FILE=CAPLUS ABB=ON PLU=ON LS
86501) SEA FILE=CAPLUS ABB=ON PLU=ON RUTHENIUM OR RU
33821) SEA FILE=CAPLUS ABB=ON PLU=ON OSMIUM OR OS
109558) SEA FILE=CAPLUS ABB=ON PLU=ON L7 OR L8
10423) SEA FILE=CAPLUS ABB=ON PLU=ON METATHESIS
1522) SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND L10
187 SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L11
L7
^{18}
L9
    (
L10 (
L11 (
L12
                   ACT LIGANDS/A
                    STR
L13
           172349) SEA FILE=REGISTRY SSS FUL L13
L14 (
           19361 SEA FILE=CAPLUS ABB=ON PLU=ON L14
      FILE 'REGISTRY' ENTERED AT 11:51:41 ON 30 DEC 2002
                   E 2-METHYLPROPEN/CN
L16
                 1 E6
                    E PROPENE/CN
L17
                 1 E3
                    E 2-METHYL-2-BUTENE/CN
L18
                 1 E3
      FILE 'CAPLUS' ENTERED AT 11:53:23 ON 30 DEC 2002
L19
            11943 L16
L20
            32254 L17
             3494 L18
L21
             513 L19 AND L20 AND L21
L22
L23
                6 L22 AND L9
             239 TRISUBSTITUTED ALKENE
L24
```

L25 329 TRISUBSTITUTED OLEFIN

L26 548 L24 OR L25

=> 126 and 110

10376 METATHESIS 155 METATHESES 10423 METATHESIS

(METATHESIS OR METATHESES)

L27 14 L26 AND L10

=> d 127 1-14 ti

L27 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2002 ACS

- TI Preparation of ruthenium alkylidene complexes as catalysts for crossmetathesis reactions of functionalized and substituted olefins
- L27 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Trisubstituted olefins as 1,1-disubstituted olefin equivalents in cross-metathesis
- L27 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and Relative Configuration, and Evaluation of Synthetic Analogues
- L27 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of Symmetrical Trisubstituted Olefins by Cross Metathesis
- L27 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Recyclable metathesis catalysts
- L27 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing metathesis
- L27 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Exploiting the Reversibility of Olefin Metathesis. Syntheses of Macrocyclic Trisubstituted Alkenes and (R,R)-(-)-Pyrenophorin
- L27 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of trisubstituted olefins by selective cross-metathesis.
- L27 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Efficient and Recyclable Monomeric and Dendritic Ru-Based Metathesis Catalysts
- L27 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI A series of ruthenium(II) ester-carbene complexes as olefin metathesis initiators: metathesis of acrylates
- L27 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of Trisubstituted Alkenes via Olefin Cross-Metathesis
- L27 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI A Hydrocarbon Structure Reactivity Study in ADMET Chemistry. 1.
- 1,1-Disubstituted and Trisubstituted Olefins
- L27 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Directional specificity and stereoselectivity in the metathesis of a trisubstituted olefin

L27 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Metathesis of a cyclic trisubstituted alkene. Preparation of polyisoprene from 1-methylcyclobutene

#### => d 127 1-14 ti fbib abs

L27 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Preparation of ruthenium alkylidene complexes as catalysts for cross-metathesis reactions of functionalized and substituted olefins

AN 2002:777864 CAPLUS

DN 137:295099

TI Preparation of ruthenium alkylidene complexes as catalysts for cross-metathesis reactions of functionalized and substituted olefins

IN Grubbs, Robert H.; Chatterjee, Arnab K.; Choi, Tae-Lim; Goldberg, Steven D.; Love, Jennifer A.; Morgan, John P.; Sanders, Daniel P.; Scholl, Matthias; Toste, F. Dean; Trnka, Tina M.

PA California Institute of Technology, USA

SO PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. WO 2002-US10196 20020401 WO 2002079126 20021010 A1 PΙ W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2001-280462PP 20010330 US 2001-280590PP 20010330 US 2001-284213PP 20010416 US 2001-285597PP 20010420 US 2001-340588PP 20011214

OS MARPAT 137:295099

AB The invention pertains to the use of Group 8 transition metal carbene complexes as catalysts for olefin cross-metathesis reactions. In particular, ruthenium and osmium alkylidene complexes substituted with an N-heterocyclic carbene

Ι

ligand are used to catalyze cross-metathesis reactions to provide a variety of substituted and functionalized olefins, including phosphonate-substituted olefins, directly halogenated olefins, 1,1,2-trisubstituted

olefins, and quaternary allylic olefins. The invention further provides a method for creating functional diversity using the aforementioned complexes to catalyze cross-metathesis reactions of a first olefinic reactant, which

mayor may not be substituted with a functional group, with each of a plurality of different olefinic reactants, which may or may not be substituted with functional groups, to give a plurality of structurally distinct olefinic products. The

methodol. of the invention is also useful in facilitating the stereoselective synthesis of 1,2-disubstituted olefins in the cis configuration. In a typical example of the synthesis of substituted allylic olefins, allyldiphenylphosphine oxide

and RuCl2(:CHPh)(IMesH2)(PCy3) (synthetic prepn. given) [IMesH = (I)] are added to cis-2-butene-1,4-diacetate to give 90% of the cross product. RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Trisubstituted olefins as 1,1-disubstituted olefin equivalents in cross-metathesis

AN 2002:618650 CAPLUS

TI Trisubstituted olefins as 1,1-disubstituted olefin equivalents in cross-metathesis

AU Sanders, Daniel P.; Chatterjee, Arnab K.; Grubbs, Robert H.

CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Abstracts of Papers, 224th ACS National Meeting, Boston, MA, United States, August 18-22, 2002 (2002), ORGN-256 Publisher: American Chemical Society, Washington, D. C.

CODEN: 69CZPZ

DT Conference; Meeting Abstract

LA English

AB Trisubstituted olefins can be synthesized via olefin cross-metathesis between terminal or internal olefins and trisubstituted olefins, such as 2-methyl-2-butene, using an N-heterocyclic

carbene-based ruthenium benzylidene catalyst. The moderate b.p. and moderate metathesis activity of the trisubstituted olefins allows these reactions to proceed in moderate to high yield at room temp. and atm.

pressures without solvent. Comparisons between the product distributions achieved with cross-metathesis using sym. 1,1-disubstituted olefins and trisubstituted olefins on a variety of substrates will be presented

along with their mechanistic implications.

L27 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and Relative Configuration, and Evaluation of Synthetic Analogues

AN 2002:585811 CAPLUS

DN 137:294812

TI Callipeltoside A: Total Synthesis, Assignment of the Absolute and Relative Configuration, and Evaluation of Synthetic Analogues

AU Trost, Barry M.; Gunzner, Janet L.; Dirat, Olivier; Rhee, Young H.

CS Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA

SO Journal of the American Chemical Society (2002), 124(35), 10396-10415 CODEN: JACSAT; ISSN: 0002-7863

PB American Chemical Society
DT Journal

LA English

GΙ

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The total synthesis of the novel antitumor agent callipeltoside A (I), as well as several analogs, is accomplished and allows assignment of the stereochem. not previously established. A convergent strategy is employed wherein the target is

dissected into three units-the core macrolactone II, the sugar callipeltose, and a cyclopropyl bearing chain. The strategy for the synthesis of the macrolactone derives from employment of diastereoselective aldol reactions that emanate from an

11 carbon piece. The stereochem. of the latter derives from the chiral pool and two asym. reactions-a ketone redn. using CBS-oxazaborolidine and a Pd catalyzed asym. allylic alkylation (AAA). The novelty of the latter protocol is its control

of regioselectivity as well as abs. configuration. The trisubstituted olefin is generated using an alkene-alkyne coupling to create a trisubstituted olefin with complete control of geometry. The

excellent chemo- and regioselectivity highlights the synthetic potential of this new ruthenium catalyzed process. The macrolactonization employs in situ formation of an acylketene generated by the thermolysis of a m-dioxolenone. Two

strategies evolved for attachment of the side chain-one based upon olefination and a second upon olefin **metathesis**. The higher efficiency of the latter makes it the method of choice. A novel one pot olefin **metathesis**-Takai

olefination protocol that should be broadly applicable is developed. The sugar is attached by a glycosylation by employing the O-trichloroacetimidate III. This route provided both C-13 epimers of the macrolactone by using either enantiomeric

ligand in the Pd AAA reaction. It also provided both trans-chlorocyclopropane diastereomers of I which allows the C-20 and C-21 configuration to be established as S and R, resp. The convergent nature of the synthesis in which the largest

piece, the macrolactone, require only 16 linear steps imparts utility to this strategy for the establishment of the structure-activity relationship. Initial biol. testing demonstrates the irrelevance of the chloro substituent and the necessity

of the sugar.

RE.CNT 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L27 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of Symmetrical Trisubstituted Olefins by Cross Metathesis
- AN 2002:335132 CAPLUS
- DN 137:62904
- TI Synthesis of Symmetrical Trisubstituted Olefins by Cross Metathesis
- AU Chatterjee, Arnab K.; Sanders, Daniel P.; Grubbs, Robert H.
- CS The Arnold and Mabel Beckman Laboratory of Chemical Synthesis, Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
- SO Organic Letters (2002), 4(11), 1939-1942

CODEN: ORLEF7; ISSN: 1523-7060 PB American Chemical Society DT Journal LА English OS CASREACT 137:62904 Trisubstituted alkenes have been prepd. via intermol. olefin crossmetathesis (CM) between .alpha.-olefins and sym. 1,1-disubstituted olefins using an imidazolylidene ruthenium benzylidene complex. Of particular interest is the synthesis of isoprenoid/prenyl groups by a simple solvent-free CM reaction with isobutylene. In addn., prenyl groups can also be installed by a cross-metathesis of 2-methyl-2-butene with a variety of .alpha.-olefins at room temp. with low catalyst loadings. THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 28 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 5 OF 14 CAPLUS COPYRIGHT 2002 ACS L27 Recyclable metathesis catalysts 2002:142760 CAPLUS AN DN 136:185768 ΤI Recyclable **metathesis** catalysts IN Hoveyda, Amir H.; Kingsbury, Jason; Garber, Steven; Gray, Brian Lawrence; Fourkas, John T. PA Trustees of Boston College, USA SO PCT Int. Appl., 58 pp. CODEN: PIXXD2 рπ Patent TιA English FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE \_\_\_\_\_ WO 2002014376 A2 20020221 WO 2001-US24955 20010809 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2000-224305PP 20000810 US 2001-264361PP 20010126 AU 2001-84773 AU 2001084773 **A**5 20020225 20010809 US 2000-224305PP 20000810 US 2001-264361PP 20010126 WO 2001-US24955W 20010809 US 2002107138 A1 20020808 US 2001-925555 20010809 US 2000-224305PP 20000810 US 2001-264361PP 20010126 OS MARPAT 136:185768 Highly active, recoverable and recyclable transition metal-based metathesis catalysts and their organometallic complexes including dendrimeric complexes are disclosed, including a Ru complex bearing a 1,3-dimesityl-4,5-dihydroimidazol-2-ylidene and styrenyl ether ligand. The heterocyclic ligand significantly enhances the catalytic activity, and the styrenyl ether allows for the easy recovery of the Ru complex. Derivatized catalysts capable of being immobilized on substrate

surfaces are also disclosed. The present catalysts can be used to catalyze ring-closing metathesis (RCM), ring-opening (ROM) and cross metatheses (CM) reactions, and promote the efficient formation of various trisubstituted olefins at ambient temp. in high yield.

L27 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing metathesis

AN 2002:10410 CAPLUS

DN 136:70246

TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing metathesis

IN Grubbs, Robert H.; Chatterjee, Arnab K.; Morgan, John P.; Scholl,
Matthias; Choi, Tae-lim

PA California Institute of Technology, USA

SO PCT Int. Appl., 44 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI WO 2002000590 A1 20020103 WO 2001-US20180 20010625

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,

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CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2000-213757PP 20000623 US 2002137978 A1 20020926 US 2001-891144 20010625

US 2001-891144 20010625 US 2000-213757PP 20000623

OS MARPAT 136:70246

GΙ

Ι

AB The cross-metathesis and ring-closing metathesis reactions between geminal disubstituted olefins and terminal olefins, use a Ru or Os metal carbene complex metathesis catalyst. Specifically, .alpha.-functionalized

II

or unfunctionalized olefins are made via intermol. cross-metathesis and intramol. ring-closing metathesis using a Ru alkylidene complex. The catalysts have structures (I) or (II) (M = Ru or Os; X, X1 = anionic ligand; <math>L = anionic ligand

neutral electron donor ligand; and, R, R1, R6, R7, R8, and R9 = H or a substituent selected from C1-C20 alkyl, C2-C20 alkenyl, C2-C20 alkynyl, aryl, C1-C20 carboxylate, C1-C20 alkoxy, C2-C20 alkenyloxy, C2-C20 alkynyloxy, aryloxy, C2-C20

alkoxycarbonyl, C1-C20 alkylthio, C1-C20 alkylsulfonyl and C1-C20 alkylsulfinyl).

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Exploiting the Reversibility of Olefin Metathesis. Syntheses of Macrocyclic Trisubstituted Alkenes and (R,R)-(-)-Pyrenophorin

AN 2001:27836 CAPLUS

DN 134:207635

TI Exploiting the Reversibility of Olefin **Metathesis**. Syntheses of Macrocyclic **Trisubstituted Alkenes** and (R,R)-(-)-Pyrenophorin

AU Fuerstner, Alois; Thiel, Oliver R.; Ackermann, Lutz

CS Max-Planck-Institut fuer Kohlenforschung, Muelheim/Ruhr, D-45470, Germany

SO Organic Letters (2001), 3(3), 449-451 CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English

OS CASREACT 134:207635

GI

- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- AB The formation of the trisubstituted cycloalkene I by RCM (ring-closing metathesis) of diene II proceeds via an acyclic dimer, thus demonstrating the ready reversibility of olefin metathesis if catalyzed by "second

generation" ruthenium carbene complexes. When applied to acrylate III, these catalysts trigger a cyclooligomerization process that evolves with time and serves as key step en route to the lactide antibiotic (-)-pyrenophorin (IV).

- RE.CNT 71 THERE ARE 71 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L27 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2002 ACS
- TI Synthesis of trisubstituted olefins by selective cross-metathesis.
- AN 2000:796557 CAPLUS
- TI Synthesis of trisubstituted olefins by selective cross-metathesis.
- AU Chatterjee, A. K.; Morgan, J. P.; Grubbs, R. H.
- CS Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA
- SO Abstr. Pap. Am. Chem. Soc. (2000), 220th, ORGN-057 CODEN: ACSRAL; ISSN: 0065-7727
- PB American Chemical Society
- DT Journal; Meeting Abstract
- LA English
- AB **Trisubstituted alkenes** have been prepd. for the first time by intermol. olefin cross-metathesis, using 1,3-dimesityl-4,5-dihydro-imidazol-2-ylidene ruthenium alkylidene complexes in good yields with moderate E

selectivity. In addn., protected alcs. near the geminal disubstituted olefin improves reactivity for cross-metathesis. In addn., the novel participation for a,b-unsatd. ester, aldehyde and ketone functionalities in cross-

metathesis, providing trisubstituted products in excellent yield and stereoselectivity will be discussed. Finally, a variety of substitution patterns in the geminal position will be presented.

L27 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Efficient and Recyclable Monomeric and Dendritic Ru-Based Metathesis Catalysts

AN 2000:556662 CAPLUS

DN 133:296007

TI Efficient and Recyclable Monomeric and Dendritic Ru-Based **Metathesis** Catalysts

AU Garber, Steven B.; Kingsbury, Jason S.; Gray, Brian L.; Hoveyda, Amir H.

CS Department of Chemistry Merkert Chemistry Center, Boston College,

Chestnut Hill, MA, 02467, USA

- Journal of the American Chemical Society (2000), 122(34), 8168-8179 CODEN: JACSAT; ISSN: 0002-7863
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 133:296007
- AB Several highly active, recoverable and recyclable Ru-based **metathesis** catalysts are presented. The crystal structure of the Ru complex (I) bearing a 1,3-dimesityl-4,5-dihydroimidazol-2-ylidene and styrenyl ether ligand is disclosed.

The heterocyclic ligand significantly enhances the catalytic activity, and the styrenyl ether allows for the easy recovery of the Ru complex. Catalyst I promotes ring-closing metathesis (RCM) and the efficient formation of various

trisubstituted olefins at ambient temp. in high yield within 2 h; the catalyst is obtained in >95% yield after silica gel chromatog. and can be used directly in subsequent reactions. Tetrasubstituted olefins can also be synthesized by RCM reactions catalyzed by I. In addn., the synthesis and catalytic activities of two dendritic and recyclable Ru-based complexes are disclosed. Examples involving catalytic ring-closing, ring-opening, and

metatheses are presented where, unlike monomer I, the dendritic catalyst
can be readily recovered.

RE.CNT 105 THERE ARE 105 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS.

TI A series of ruthenium(II) ester-carbene complexes as olefin metathesis initiators: metathesis of acrylates

AN 2000:443431 CAPLUS

DN 133:207970

TI A series of ruthenium(II) ester-carbene complexes as olefin **metathesis** initiators: **metathesis** of acrylates

AU Ulman, M.; Belderrain, T. R.; Grubbs, R. H.

CS Division of Chemistry and Chemical Engineering, The Arnold and Mabel Beckman Laboratory of Chemical Synthesis, California Institute of Technology, Pasadena, CA, 91125, USA

SO Tetrahedron Letters (2000), 41(24), 4689-4693 CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier Science Ltd.

DT Journal

LA English

AB A series of ester-carbene complexes, Cl2(Cy3P)2Ru:CHZ (Z = CO2R, R = Me, p-tolyl, t-Bu, iPr, cyclohexyl, 1-adamantyl, Ph), were synthesized. These complexes were highly active for the **metathesis** of olefinic substrates, including

acrylates and trisubstituted olefins. In addn., the ester-carbene moiety is thermodynamically high in energy. As a result, these complexes react to ring-open cyclohexene by metathesis to alleviate the thermodn. strain of the ester-carbene ligand.

RE.CNT 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI Synthesis of Trisubstituted Alkenes via Olefin Cross-Metathesis

AN 1999:696959 CAPLUS

DN 132:78128

TI Synthesis of Trisubstituted Alkenes via Olefin Cross-Metathesis

AU Chatterjee, Arnab K.; Grubbs, Robert H.

CS Arnold and Mabel Beckman Laboratory of Chemical Synthesis Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA

SO Organic Letters (1999), 1(11), 1751-1753

CODEN: ORLEF7; ISSN: 1523-7060

PB American Chemical Society

DT Journal

LA English

OS CASREACT 132:78128

GI

$$R^3-N$$
 $N-R^3$ 
 $R^1$ 
 $C1$ 
 $Ru$ 
 $P(R^2)_3$  II

AB **Trisubstituted alkenes**, e.g. I, have been prepd. for the first time via intermol. olefin cross-metathesis in good yields with moderate E selectivity using 1,3-dimesityl-4,5-dihydroimidazol-2-ylidene ruthenium

alkylidene complexes II [R1 = Ph, (Me)2C:CH; R2 = cyclohexyl; R3 = 2,4,6-(Me)3C6H2]. In addn., protected alcs. near the geminal disubstituted olefin improve reactivity for cross-metathesis.

RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L27 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2002 ACS

TI A Hydrocarbon Structure Reactivity Study in ADMET Chemistry. 1.

1,1-Disubstituted and Trisubstituted Olefins

AN 1995:592017 CAPLUS

DN 123:10060

TI A Hydrocarbon Structure Reactivity Study in ADMET Chemistry. 1.

1,1-Disubstituted and Trisubstituted Olefins

AU Konzelman, J.; Wagener, K. B.

Department of Chemistry, University of Florida, Gainesville, FL, 32611-7200, USA Macromolecules (1995), 28(13), 4686-92 CODEN: MAMOBX; ISSN: 0024-9297 American Chemical Society PB DТ Journal LΑ English The ADMET chem. of 1,1-disubstituted, 1,2-disubstituted, and AB trisubstituted alkenes has been examd. in the presence of the Lewis acid free metathesis catalysts M(CHR') (NAr) (OR) 2 where M = W (1) or Mo (2), Ar = 2,6-(i-Pr)2C6H3, R' = CMe2Ph, and R = CMe(CF3)2, and the specific interaction of each olefin with the catalysts has been monitored by 1H NMR. Successful metathesis depends on both the substitution pattern of the olefin and the catalyst employed. The molybdenum-based catalyst promotes the metathesis of 1,1-disubstituted alkenes but only through cross-metathesis with internal olefins which are no greater than disubstituted. The tungsten-based catalyst is unable to promote metathesis chem. with these substituted olefins. L27 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2002 ACS Directional specificity and stereoselectivity in the metathesis of a trisubstituted olefin ΑN 1977:4843 CAPLUS DN 86:4843 Directional specificity and stereoselectivity in the metathesis of a TItrisubstituted olefin Lee, Steven J.; McGinnis, James; Katz, Thomas J. Dep. Chem., Columbia Univ., New York, NY, USA Journal of the American Chemical Society (1976), 98(24), 7818-19 CODEN: JACSAT; ISSN: 0002-7863 DΤ Journal LА English 1-Methyl-trans-cyclooctene and (diphenylcarbene)pentacarbonyltungsten in AΒ an evacuated ampule at 50.degree. for 23 hr gave E- and Z-isomers of poly(1-methyl-1-octene-1,8-diyl). The percentages of E and Z isomers measured by the intensities of the 13C NMR signals was 76 .+-. 1% E and 24 .+-. 1% Z. A mechanism involving a chain reaction in which a metal-carbene is the chain carrier is postulated. ANSWER 14 OF 14 CAPLUS COPYRIGHT 2002 ACS Metathesis of a cyclic trisubstituted alkene. Preparation of polyisoprene from 1-methylcyclobutene 1976:106111 CAPLUS AN DN 84:106111 Metathesis of a cyclic trisubstituted alkene. Preparation of polyisoprene from 1-methylcyclobutene Katz, Thomas J.; McGinnis, James; Altus, Craig AU Dep. Chem., Columbia Univ., New York, NY, USA CS Journal of the American Chemical Society (1976), 98(2), 606-8 SO CODEN: JACSAT; ISSN: 0002-7863 DT Journal LΑ English Metathesis of 1-methylcyclobutene [1489-60-7] in the presence of (diphenylcarbene)pentacarbonyl tungsten [50276-12-5] for 18 hr at 50.degree. gave a polymer which was shown by NMR to be mainly polyisoprene [9003-31-0] contg. 84-7% cis and 13-16% trans units. In addn. to 2-methyl-2-butene units, the polymer also contained 2-butene and 2,3-dimethyl-2-butene units. A mixt. of WC16 [13283-01-7] and BuLi [109-72-8] also catalyzed the metathesis, but gave a less pure

### product with about the same stereoselectivity.

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NEWS 16 Aug 08 CANCERLIT reload

NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN

NEWS 18 Aug 08 NTIS has been reloaded and enhanced

NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN

NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded

NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded

NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced

NEWS 23 Sep 03 JAPIO has been reloaded and enhanced

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=> L1 L2 ( 172349) SEA FILE=REGISTRY SSS FUL L1 19361) SEA FILE=CAPLUS ABB=ON PLU=ON L2 L3 86501) SEA FILE=CAPLUS ABB=ON PLU=ON RUTHENIUM OR RU L433821) SEA FILE=CAPLUS ABB=ON PLU=ON OSMIUM OR OS L5 109558) SEA FILE=CAPLUS ABB=ON PLU=ON L4 OR L5 L6 10423) SEA FILE=CAPLUS ABB=ON PLU=ON METATHESIS L7 ( 1522) SEA FILE=CAPLUS ABB=ON PLU=ON L6 AND L7  $r_8$ 187 SEA FILE=CAPLUS ABB=ON PLU=ON L3 AND L8

=>

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

0.83

1.37

FULL ESTIMATED COST

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 20, 2002 (20021220/UP).

=>								
NAME	CREATED	NOTES/TITLE						
ALKYLATIN/L	13 DEC 2001	9 L-NUMBERS						
CATWLIGNDS/A	TEMP	187 ANSWERS IN FILE CAPLUS						
ESTERODOR/L	05 SEP 2002	42 L-NUMBERS						
INDIUMCL3/A	30 MAY 2001	1 ANSWER IN FILE REGISTRY						
LIGANDS/A	TEMP	19361 ANSWERS IN FILE CAPLUS						
LTWENTAUGFOR/A	04 AUG 2001	72 ANSWERS IN FILE CAPLUS						
METATHESIS/L	TEMP	9 L-NUMBERS						
NEOTAMECRYST/A	24 APR 2001	59 ANSWERS IN FILE CAPLUS						
NVLARMFULGEN/A	19 APR 2001	196 ANSWERS IN FILE REGISTRY						
POHBENZALDEH/A	10 JUL 2001	5519 ANSWERS IN FILE CAPLUS						
PROSTACMPD15/A	01 AUG 2001	34 ANSWERS IN FILE CAPLUS						
STILLEAPP/L	07 JAN 2002	17 L-NUMBERS						
TWOAMINOPOLY/Q	16 APR 2001	UPLOADED STRUCTURE						

NO SAVED SDI REQUESTS

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION

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FULL ESTIMATED COST

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=>
L13
                STR
         172349) SEA FILE=REGISTRY SSS FUL L13
L14 (
         19361) SEA FILE=CAPLUS ABB=ON PLU=ON L14
L15 (
         86501) SEA FILE=CAPLUS ABB=ON PLU=ON RUTHENIUM OR RU
L16 (
         33821) SEA FILE=CAPLUS ABB=ON PLU=ON OSMIUM OR OS
L17 (
         109558) SEA FILE=CAPLUS ABB=ON PLU=ON L16 OR L17
L18 (
          10423) SEA FILE=CAPLUS ABB=ON PLU=ON METATHESIS
L19 (
                                       PLU=ON
                                               L18 AND L19
           1522) SEA FILE=CAPLUS ABB=ON
L20
            187 SEA FILE=CAPLUS ABB=ON PLU=ON
                                               L15 AND L20
L21
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=> d his

(FILE 'HOME' ENTERED AT 07:36:23 ON 02 JAN 2003)

FILE 'STNGUIDE' ENTERED AT 07:36:36 ON 02 JAN 2003

FILE 'HOME' ENTERED AT 07:36:44 ON 02 JAN 2003

FILE 'STNGUIDE' ENTERED AT 07:36:48 ON 02 JAN 2003

FILE 'CAPLUS' ENTERED AT 07:37:31 ON 02 JAN 2003 ACT CATWLIGNDS/A

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L1 STR
L2 ( 172349)SEA FILE=REGISTRY SSS FUL L1
L3 ( 19361)SEA FILE=CAPLUS ABB=ON PLU=ON L2
L4 ( 86501)SEA FILE=CAPLUS ABB=ON PLU=ON RUTHENIUM OR RU
L5 ( 33821)SEA FILE=CAPLUS ABB=ON PLU=ON OSMIUM OR OS
L6 ( 109558)SEA FILE=CAPLUS ABB=ON PLU=ON L4 OR L5
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L7 L8 L9	(	1522) SEA	FILE=CAPLUS FILE=CAPLUS FILE=CAPLUS	ABB=ON	PLU=ON PLU=ON PLU=ON	L6	ATHE AND AND	L7
		ACT	LIGANDS/A					
L10		STR						
L11	(	172349) SEA	FILE=REGIST	RY SSS F	UL L10			
T.12		19361 SEA	FILE=CAPLUS	ABB=ON	PLU=ON	L11	L	

FILE 'STNGUIDE' ENTERED AT 07:38:26 ON 02 JAN 2003

FILE 'CAPLUS' ENTERED AT 07:38:43 ON 02 JAN 2003 ACT CATWLIGNDS/A

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L13 L14 L15 L16 L17	( (	19361) SEA 86501) SEA	FILE=REGISTI FILE=CAPLUS FILE=CAPLUS FILE=CAPLUS	ABB=ON ABB=ON	PLU=ON PLU=ON	L14 RUTHENIUM OR RU OSMIUM OR OS
L18	•	109558) SEA 10423) SEA 1522) SEA	FILE=CAPLUS FILE=CAPLUS FILE=CAPLUS FILE=CAPLUS	ABB=ON ABB=ON ABB=ON	PLU=ON PLU=ON	L16 OR L17 METATHESIS L18 AND L19 L15 AND L20

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.83 2.26

FULL ESTIMATED COST

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=> cross metahthesis 403857 CROSS 12275 CROSSES 414485 CROSS (CROSS OR CROSSES) 0 METAHTHESIS L22 O CROSS METAHTHESIS (CROSS (W) METAHTHESIS) => cross metathesis 403857 CROSS 12275 CROSSES 414485 CROSS (CROSS OR CROSSES) 10378 METATHESIS 155 METATHESES 10425 METATHESIS (METATHESIS OR METATHESES) L23 330 CROSS METATHESIS (CROSS (W) METATHESIS) => styrene 234080 STYRENE 4068 STYRENES L24 235246 STYRENE (STYRENE OR STYRENES) => 123 and 12433 L23 AND L24 L25 => 121 and 125 6 L21 AND L25 L26 => d 126 1-6 ti L26 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS A Recyclable Chiral Ru Catalyst for Enantioselective Olefin Metathesis. Efficient Catalytic Asymmetric Ring-Opening/ Cross Metathesis in Air L26 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS Cross-Metathesis of Vinylsilanes with Allyl Alkyl Ethers Catalyzed by Ruthenium-Carbene Complexes L26 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS Preparation and Activity of Recyclable Polymer-Supported Ruthenium TΙ Olefin Metathesis Catalysts ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS L26 Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing metathesis L26 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS Synthesis of vinyl- and allylphosphonates by olefin cross-TТ metathesis L26 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS Synthesis of .alpha.,.beta.-unsaturated amides by olefin crossmetathesis

## => d 126 1-6 ti fbib abs

L26 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS

TI A Recyclable Chiral Ru Catalyst for Enantioselective Olefin Metathesis. Efficient Catalytic Asymmetric Ring-Opening/Cross Metathesis in Air

AN 2002:287544 CAPLUS

DN 137:46783

- TI A Recyclable Chiral Ru Catalyst for Enantioselective Olefin Metathesis. Efficient Catalytic Asymmetric Ring-Opening/Cross Metathesis in Air
- AU Van Veldhuizen, Joshua J.; Garber, Steven B.; Kingsbury, Jason S.; Hoveyda, Amir H.
- CS Department of Chemistry, Merkert Chemistry Center, Boston College, Chestnut Hill, MA, 02467, USA
- SO Journal of the American Chemical Society (2002), 124(18), 4954-4955 CODEN: JACSAT; ISSN: 0002-7863
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 137:46783
- AB The synthesis and structure of a new chiral bidentate imidazolinylidene ligand and a derived chiral Ru-based carbene are disclosed. The Ru complex is stereogenic at the metal center; it can be prepd. in >98% diastereoselectivity and purified by silica gel chromatog. with undistd. solvents. The air-stable Ru complex efficiently catalyzes ring-closing and ring-opening metathesis and is recyclable. The chiral complex is highly effective (0.5-10 mol % loading)

in promoting enantioselective ring-opening/cross
metathesis reactions (up to >98% ee). These enantioselective
transformations can be effected in air, with unpurified solvent and with
substrates that would only polymerize with Mo-based catalysts.

- RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L26 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS
- TI Cross-Metathesis of Vinylsilanes with Allyl Alkyl Ethers Catalyzed by Ruthenium-Carbene Complexes
- AN 2002:101824 CAPLUS
- DN 136:294935
- TI Cross-Metathesis of Vinylsilanes with Allyl Alkyl Ethers Catalyzed by Ruthenium-Carbene Complexes
- AU Kujawa-Welten, Malgorzata; Pietraszuk, Cezary; Marciniec, Bogdan
- CS Faculty of Chemistry, Adam Mickiewicz University, Poznan, 60-780, Pol.
- SO Organometallics (2002), 21(5), 840-845 CODEN: ORGND7; ISSN: 0276-7333
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 136:294935
- AB The cross-metathesis of vinyltrialkoxy- and vinyltrisiloxysilanes as well as divinyltetraethoxydisiloxane with various

allyl alkyl ethers catalyzed by Cl2(PCy3)2Ru(:CHPh) (I) is presented. The

reaction is accompanied by self-metathesis of allyl alkyl

ethers. The catalytic examn. presented in this paper has allowed the authors to develop optimum conditions for selective synthesis of 1-sily1-3-alkoxy-propenes (R'O)3SiCH:CHOR (R = Et, Bu, Cy, Ph, PhCH2, glycidyl, Me3Si, R' = Me, Et, SiMe3) with high preference of the

E-isomers

(E/Z > 7:1). This allowed the selective isolation of the E-isomer. A stoichiometric study of I with substrates was carried out. The results are discussed on the basis of a metallacarbene mechanism.

- RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L26 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS
- TI Preparation and Activity of Recyclable Polymer-Supported Ruthenium Olefin Metathesis Catalysts
- AN 2002:52088 CAPLUS
- DN 136:247686
- TI Preparation and Activity of Recyclable Polymer-Supported Ruthenium Olefin Metathesis Catalysts
- AU Jafarpour, Laleh; Heck, Marie-Pierre; Baylon, Christophe; Lee, Han Man; Mioskowski, Charles; Nolan, Steven P.
- CS Department of Chemistry, University of New Orleans, New Orleans, LA, 70148, USA
- SO Organometallics (2002), 21(4), 671-679 CODEN: ORGND7; ISSN: 0276-7333
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 136:247686
- AB The Ru catalysts (PCy3)2Ru(:C(H)Ph)Cl2 (1), (PCy3)Ru
  (IMes)(:C(H)Ph)Cl2 (2), (PCy3)Ru(SIMes)(:C(H)Ph)Cl2 (3), (PCyp3)
  Ru(IMes)(:CHCH:CMe2)Cl2 (4), and (PCy3)Ru
  (IPr)(3-phenylinden-1-ylidene)Cl2 (5), where IMes = 1,3-bis(2,4,6-trimethylphenyl)imidazol-2-ylidene, SIMes =
- 1,3-bis(2,4,6-trimethylphenyl)4,5-dihydroimidazol-2-ylidene, IPr = 1,3-bis(2,6-diisopropylphenyl)imidazol-2-ylidene, Cy = cyclohexyl, and Cpy = cyclopentyl, were grafted to polymer supports and are effective heterogeneous catalysts for ring-closing metathesis. In some cases, they are recyclable, show comparable reactivity to their homogeneous counterparts, tolerate functional groups, and perform very well with unsubstituted dienes.
- RE.CNT 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L26 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS
- TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing metathesis
- AN 2002:10410 CAPLUS
- DN 136:70246
- TI Synthesis of functionalized and unfunctionalized olefins via cross and ring-closing metathesis
- IN Grubbs, Robert H.; Chatterjee, Arnab K.; Morgan, John P.; Scholl, Matthias; Choi, Tae-lim
- PA California Institute of Technology, USA
- SO PCT Int. Appl., 44 pp. CODEN: PIXXD2
- DT Patent
- LA English
- FAN.CNT 1

	PATENT NO.			KIND DATE			APPLICATION NO.				э.	DATE				
ΡI	PI WO 2002000590			A1 20020103			WO 2001-US20180				80	20010625				
	W:	AE, A	AL, AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	co,	CR,
		CU, C	CZ, DE,	DK,	DM,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,
		ID, I	IL, IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,
		LV, M	MA, MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,
		SG, S	SI, SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,	ΥU,	ZA,
		ZW, A	AM, AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM						
	RW:	GH, G	GM, KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	ΑT,	BE,	CH,	CY,
		DE, I	OK, ES,	FΙ,	FR,	GB,	GR,	IE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		BJ, C	CF, CG,	CI,	CM,	GA,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
								Ū:	s 20	00-2	1375	7PP	2000	0623		
	US 2002137978 A			1	20020926			US 2001-891144				4	20010625			
							US 2000-213757PP 20000623									
OS GI	MARPAT	136:70	0246													

R6 R7

R8N NR9

X1

R1

Ι

R6 R7

R8N NR9

X1

R

R1

II

AB The cross-metathesis and ring-closing
metathesis reactions between geminal disubstituted olefins and
terminal olefins, use a Ru or Os metal carbene complex
metathesis catalyst. Specifically, .alpha.-functionalized or
unfunctionalized olefins are made via intermol. crossmetathesis and intramol. ring-closing metathesis using a
Ru alkylidene complex. The catalysts have structures (I) or (II)
(M = Ru or Os; X, X1 = anionic ligand; L = neutral
electron donor ligand; and, R, R1, R6, R7, R8, and R9 = H or a
substituent

selected from C1-C20 alkyl, C2-C20 alkenyl, C2-C20 alkynyl, aryl, C1-C20
carboxylate, C1-C20 alkoxy, C2-C20 alkenyloxy, C2-C20 alkynyloxy,
aryloxy,

C2-C20 alkoxycarbonyl, C1-C20 alkylthio, C1-C20 alkylsulfonyl and C1-C20 alkylsulfinyl).

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS

TI Synthesis of vinyl- and allylphosphonates by olefin cross-metathesis

AN 2001:462195 CAPLUS

DN 135:195615

TI Synthesis of vinyl- and allylphosphonates by olefin cross-

AU Chatterjee, Arnab K.; Choi, Tae-Lim; Grubbs, Robert H.

Arnold and Mabel Beckman Laboratories of Chemical Synthesis, Division of CS Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA Synlett (2001), (Spec. Issue), 1034-1037 SO CODEN: SYNLES; ISSN: 0936-5214 PB Georg Thieme Verlag Journal DTLA English OS CASREACT 135:195615 Substituted allyl and vinyl phosphonates were prepd. for the 1st time AB from (EtO)2P(O)CH:CH2 and (EtO)2P(O)CH2CH:CH2 via intermol. olefin cross-metathesis by using a 1,3-dimesityl-4,5dihydroimidazol-2-ylidene Ru alkylidene complex in good (73-97%) vields. A variety of terminal olefins, styrenes, and geminally disubstituted olefins were successfully employed in these reactions. addn., cross-metathesis of vinylphosphonates provide exclusive E olefin stereochem. THERE ARE 74 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 74 ALL CITATIONS AVAILABLE IN THE RE FORMAT L26 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS Synthesis of .alpha.,.beta.-unsaturated amides by olefin cross-TImetathesis AN 2001:284451 CAPLUS DN 135:77120 Synthesis of .alpha.,.beta.-unsaturated amides by olefin cross-TI metathesis Choi, Tae-Lim; Chatterjee, Arnab K.; Grubbs, Robert H. ΑU Arnold and Mabel Laboratories of Chemical Synthesis Division of Chemistry CS and Chemical Engineering, California Institute of Technology, Pasadena, CA, 91125, USA Angewandte Chemie, International Edition (2001), 40(7), 1277-1279 SO CODEN: ACIEF5; ISSN: 1433-7851 PB Wiley-VCH Verlag GmbH DTJournal LΑ English We report a versatile cross-coupling reaction of various AB .alpha.,.beta.-unsatd. amides with terminal olefins or styrene, and show that the cross-metathesis efficiency is affected by the substituents on the amide nitrogen. .alpha.-.beta.-Unsatd. amides are excellent cross-metathesis partners with terminal olefins and styrene in presence of a ruthenium catalyst contg. a 1,3-dimesityl-4,5-dihydroimidazol-2ylidene ligand. This method allows for an efficient one-step formation  $\alpha f$ functionalized .alpha.,.beta.-unsatd. amides under mild conditions. THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 42 ALL CITATIONS AVAILABLE IN THE RE FORMAT logoff hold COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION 27.01 29.27 FULL ESTIMATED COST DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL

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                 BEILSTEIN: Reload and Implementation of a New Subject Area
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NEWS 4 Apr 09
                 ZDB will be removed from STN
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IFIUDB
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ZCAPLUS
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         Apr 22
                 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002;
                 saved answer sets no longer valid
                 Enhanced polymer searching in REGISTRY
NEWS 14 Jul 29
NEWS 15 Jul 30
                NETFIRST to be removed from STN
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                 CANCERLIT reload
NEWS 17
         Aug 08
                 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18
         Aug 08
                 NTIS has been reloaded and enhanced
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                 Aquatic Toxicity Information Retrieval (AQUIRE)
                 now available on STN
NEWS 20
         Aug 19
                 IFIPAT, IFICDB, and IFIUDB have been reloaded
                 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 21
         Aug 19
NEWS 22
         Aug 26
                 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03
                 JAPIO has been reloaded and enhanced
NEWS 24 Sep 16
                 Experimental properties added to the REGISTRY file
NEWS 25 Sep 16
                 Indexing added to some pre-1967 records in CA/CAPLUS
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985
NEWS 28 Oct 21 EVENTLINE has been reloaded
NEWS 29 Oct 24 BEILSTEIN adds new search fields
NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on
STN
NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002
NEWS 32 Nov 18 DKILIT has been renamed APOLLIT
NEWS 33 Nov 25 More calculated properties added to REGISTRY
NEWS 34 Dec 02
                 TIBKAT will be removed from STN
NEWS 35 Dec 04 CSA files on STN
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NEWS 36 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 37 Dec 17 TOXCENTER enhanced with additional content
 NEWS 38 Dec 17 Adis Clinical Trials Insight now available on STN
 NEWS 39 Dec 30 ISMEC no longer available
NEWS EXPRESS December 31 CURRENT WINDOWS VERSION IS V6.01a,
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              AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002
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NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY NETFIRST to be removed from STN NEWS 15 Jul 30 NEWS 16 Aug 08 CANCERLIT reload PHARMAMarketLetter(PHARMAML) - new on STN NEWS 17 Aug 08 NTIS has been reloaded and enhanced NEWS 18 Aug 08 Aquatic Toxicity Information Retrieval (AQUIRE) NEWS 19 Aug 19 now available on STN IFIPAT, IFICDB, and IFIUDB have been reloaded NEWS 20 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded NEWS 21 Aug 19 Aug 26 Sequence searching in REGISTRY enhanced NEWS 22 JAPIO has been reloaded and enhanced NEWS 23 Sep 03 Experimental properties added to the REGISTRY file Sep 16 NEWS 24 Indexing added to some pre-1967 records in CA/CAPLUS NEWS 25 Sep 16 CA Section Thesaurus available in CAPLUS and CA NEWS 26 Sep 16 CASREACT Enriched with Reactions from 1907 to 1985 Oct 01 NEWS 27 NEWS 28 Oct 21 EVENTLINE has been reloaded NEWS 29 Oct 24 BEILSTEIN adds new search fields NEWS 30 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN NEWS 31 Oct 25 MEDLINE SDI run of October 8, 2002 NEWS 32 Nov 18 DKILIT has been renamed APOLLIT NEWS 33 Nov 25 More calculated properties added to REGISTRY NEWS 34 Dec 02 TIBKAT will be removed from STN NEWS 35 Dec 04 CSA files on STN NEWS 36 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date TOXCENTER enhanced with additional content NEWS 37 Dec 17 Adis Clinical Trials Insight now available on STN NEWS 38 Dec 17 NEWS 39 Dec 30 ISMEC no longer available NEWS EXPRESS December 31 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP), AND CURRENT DISCOVER FILE IS DATED 01 OCTOBER 2002 NEWS HOURS STN Operating Hours Plus Help Desk Availability General Internet Information NEWS INTER NEWS LOGIN Welcome Banner and News Items Direct Dial and Telecommunication Network Access to STN NEWS PHONE CAS World Wide Web Site (general information) NEWS WWW

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SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
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0.21

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STRUCTURE FILE UPDATES: 1 JAN 2003 HIGHEST RN 477930-11-3 DICTIONARY FILE UPDATES: 1 JAN 2003 HIGHEST RN 477930-11-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

```
=> e methyl acrylate/cn
                   METHYL ACRYLAMIDOGLYCOLATE METHYL ETHER HOMOPOLYMER/CN
E1
                   METHYL ACRYLAMIDOGLYCOLATE METHYL ETHER-VINYLPYRROLIDONE
E2
             1
COP
                   OLYMER/CN
E3
             1 --> METHYL ACRYLATE/CN
                   METHYL ACRYLATE COMPOUND WITH METHYL LINOLATE (1:1)/CN
F.4
             1
                   METHYL ACRYLATE DIANION/CN
E5
             1
                   METHYL ACRYLATE DIMER/CN
             1
F.6
                   METHYL ACRYLATE HOMOPOLYMER/CN
E7
             1
                   METHYL ACRYLATE HOMOPOLYMER DOCOSYL ESTER/CN
             1
E8
                   METHYL ACRYLATE HOMOPOLYMER DODECYL ESTER/CN
             1
Ε9
                   METHYL ACRYLATE HOMOPOLYMER EICOSYL ESTER/CN
E10
             1
                   METHYL ACRYLATE HOMOPOLYMER ESTER WITH 1-(2-HYDROXYETHYL)
E11
             1
PY
                   RROLIDINE/CN
                   METHYL ACRYLATE HOMOPOLYMER ESTER WITH
2-(2-HYDROXYETHYL) PYR
                   IDINE/CN
=> e3
             1 "METHYL ACRYLATE"/CN
L1
=> d 11
     ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS
L1
     96-33-3 REGISTRY
RN
     2-Propenoic acid, methyl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Acrylic acid methyl ester (6CI, 8CI)
CN
OTHER NAMES:
     2-Propenoic acid methyl ester
CN
     Methoxycarbonylethylene
CN
     Methyl acrylate
CN
     Methyl acrylic ester
CN
CN
     Methyl prop-2-enoate
CN
     Methyl propenoate
     3D CONCORD
FS
DR
     102256-29-1
```

C4 H6 O2 MF COM CT AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN\*, BIOBUSINESS, BIOSIS, LCSTN Files: BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM\*, DIPPR\*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB (\*File contains numerically searchable property data) Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\* (\*\*Enter CHEMLIST File for up-to-date regulatory information)

0 || мео- с- сн- сн<sub>2</sub>

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

10717 REFERENCES IN FILE CA (1962 TO DATE)
785 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
10731 REFERENCES IN FILE CAPLUS (1962 TO DATE)
313 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> e ethyl acrylate/cn ETHYL ACRYALTE-N-METHOXYMETHYLACRYLAMIDE-STYRENE-ETHYL E1 ACRYL ATE-2-ETHYLHEXYL ACRYLATE-ACRYLIC ACID-2-HYDROXYETHYL **METHAC** RYLATE GRAFT COPOLYMER/CN ETHYL ACRYLACETATE-2-ETHYLHEXYL ACRYLATE-METHYL E2 **METHACRYLATE** -STYRENE POLYMER/CN E3 1 --> ETHYL ACRYLATE/CN ETHYL ACRYLATE 1-PHENYL-3-METHACRYLAMIDO-5-PYRAZOLONE E4 POLYME RS/CN ETHYL ACRYLATE COPOLYMERS/CN E5 E6 1 ETHYL ACRYLATE DIMER/CN ETHYL ACRYLATE ETHYL METHACRYLATE-N-METHYLOLACRYLAMIDE E7 TERPO LYMER/CN E8 1 ETHYL ACRYLATE HOMOPOLYMER/CN ETHYL ACRYLATE HOMOPOLYMER 2-(VINYLOXYETHOXY) ETHYL ESTER/CN E9 1 ETHYL ACRYLATE POLYMER/CN E10 1 E11 1 ETHYL ACRYLATE POLYMER, SYNDIOTACTIC/CN ETHYL ACRYLATE POLYMERS/CN E12 => e3L2 1 "ETHYL ACRYLATE"/CN

=> d 12

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS RN 140-88-5 REGISTRY

```
2-Propenoic acid, ethyl ester (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Acrylic acid ethyl ester (6CI, 8CI)
OTHER NAMES:
     2-Propenoic acid ethyl ester
     Ethyl 2-propenoate
CN
CN
     Ethyl acrylate
CN
     Ethyl acrylic ester
CN
     Ethyl propenoate
     3D CONCORD
FS
     C5 H8 O2
MF
CI
     COM
                   AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS,
LC
     STN Files:
       BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
       CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*,
       EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC,
       PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA,
       ULIDAT, USPAT2, USPATFULL, VTB
         (*File contains numerically searchable property data)
     Other Sources: DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
     0
    П
EtO-C-CH=CH2
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
             6326 REFERENCES IN FILE CA (1962 TO DATE)
             1012 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             6335 REFERENCES IN FILE CAPLUS (1962 TO DATE)
              209 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
=> e 1-hexene/cn
                    1-HEXEN-6-YL ACRYLATE/CN
E1
              1
                    1-HEXEN-6-YL METHACRYLATE/CN
E2
              1
E3
              1 \longrightarrow 1-HEXENE/CN
                    1-HEXENE COMPOUND WITH IODINE (1:1)/CN
F:4
              1
                    1-HEXENE COMPOUND WITH IODINE CHLORIDE (ICL) (1:1)/CN
E5
              1
E6
              1
                    1-HEXENE DIMER/CN
E7
              1
                    1-HEXENE EPOXIDE/CN
E8
              1
                    1-HEXENE OXIDE/CN
                    1-HEXENE OXIDE-D-LACTIDE-L-LACTIDE-PROPYLENE
E9
              1
GLYCOL-PYROMELL
                    ITIC DIANHYDRIDE COPOLYMER/CN
                    1-HEXENE OXIDE-METHYL 4,5-EPOXYPENTANOATE COPOLYMER/CN
E10
              1
E11
                    1-HEXENE OXIDE-METHYL 7,8-EPOXYOCTANOATE COPOLYMER/CN
E12
                    1-HEXENE OXIDE-METHYL-10,11-EPOXYUNDECANOATE COPOLYMER/CN
=> e3
              1 1-HEXENE/CN
L3
```

=> d 13

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2003 ACS

RN 592-41-6 REGISTRY

CN 1-Hexene (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1-n-Hexene

CN Dialen 6

CN Hexene

FS 3D CONCORD

DR 153522-12-4, 33004-04-5

MF C6 H12

CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM\*, DIPPR\*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN\*, HODOC\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM\*, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB (\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

 $H_2C = CH - Bu - n$ 

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

8846 REFERENCES IN FILE CA (1962 TO DATE)
143 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
8857 REFERENCES IN FILE CAPLUS (1962 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

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FULL ESTIMATED COST

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=> 11 10731 L1 L4=> 12 L5 6335 L2 => 138860 L3 1.6 => 14 or 1515551 L4 OR L5 => 16 and 17 301 L6 AND L7  $r_8$ => ruthenium or ru 69455 RUTHENIUM 20 RUTHENIUMS 69455 RUTHENIUM (RUTHENIUM OR RUTHENIUMS) 54428 RU 169 RUS 54575 RU (RU OR RUS) L9 86538 RUTHENIUM OR RU => 18 and 19 L10 14 L8 AND L9 => metathesis 10378 METATHESIS 155 METATHESES 10425 METATHESIS L11

(METATHESIS OR METATHESES)

=> 110 aned 111

MISSING OPERATOR L10 ANED

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> 110 and 111 0 L10 AND L11

=> d 110 1-14 ti

L10 ANSWER 1 OF 14 CAPLUS COPYRIGHT 2003 ACS

Formation of Substituted Vinylsilanes from the Ruthenium TΙ -Catalyzed Dehydrosilylation of Terminal Alkenes

ANSWER 2 OF 14 CAPLUS COPYRIGHT 2003 ACS

Direct Carbonylation at a C-H Bond in the Benzene Ring of 2-Phenyloxazolines Catalyzed by Ru3(CO)12. Scope, Limitations and

## Mechanistic Aspects

- L10 ANSWER 3 OF 14 CAPLUS COPYRIGHT. 2003 ACS
- TI Ru3(CO)12- and Rh4(CO)12-Catalyzed Reactions of Pyridyl Olefins or N-(2-Pyridyl)enamines with CO and Olefins. Carbonylation at Olefinic C-H Bonds
- L10 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Catalytic addition of aromatic carbon-hydrogen bonds to olefins with the aid of **ruthenium** complexes
- L10 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Novel perfluoroalkylation of alkenes with perfluoroalkanesulfonyl chlorides catalyzed by a **ruthenium**(II) complex
- L10 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Formaldehyde and formates as sources of synthesis gas via ruthenium-catalyzed decomposition reactions
- L10 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Reaction of terminal olefins with a hydrosilane and with carbon monoxide catalyzed by complexes of cobalt, ruthenium, and rhodium
- L10 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Polymeric cofactors which accelerate homogeneous rhodium(I) and ruthenium(II) catalyzed hydrogenations of alkenes
- L10 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Single-operation synthesis of vinylsilanes from alkenes and hydrosilanes with the aid of Ru3(CO)12
- L10 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI [RuH(1-6-.eta.-C8H10)(1',2';5',6'-.eta.-C8H12)]BF4, the first isolated hydridometal complex stabilized only by alicyclic hydrocarbon ligands and a very efficient catalyst precursor for the transformation of alkenes
- L10 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Addition of sulfonyl chlorides to olefins in the presence of catalytic amounts of dichlorotris(triphenylphosphine)ruthenium(II)
- L10 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Functional organic dichlorosilanes
- L10 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Ruthenium phosphine complexes as catalysts for the hydrosilylation of the carbon-carbon double bond
- L10 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2003 ACS
- TI Turnover numbers in homogeneous catalytic hydrogenation with hydridochlorotris(triphenylphosphine)ruthenium

=> logoff hold COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 11.10 30.21

FULL ESTIMATED COST

SESSION WILL BE HELD FOR 60 MINUTES STN INTERNATIONAL SESSION SUSPENDED AT 11:40:40 ON 02 JAN 2003